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May 2010

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COVERSTORY

MARINE ENVIRONMENT

30 Slow Steaming: Passing Fad or Here to Stay?

Container shipping's laid up capacity could all be back in service as early as mid-2011 as carriers intensify the practice of slow steaming vessels on long-haul trades. *Maritime Reporter's* correspondent in Hong Kong reports on the environmental advantages, as well as the technical and logistical challenges, of taking ships built and intended to steam at up to 25 knots and slowing them down. • **by Greg Knowler**

(Photo OOCL)

WRITERS Weigel, DeSimone, Spielmann, Bryant

ALSO IN THIS EDITION

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The tragic explosion and loss of Transocean's **Deepwater Horizon** last month, and subsequent efforts to use ROVs to help stop the outflow of oil from the well, which is situated more than 5,000 feet below the surface, serve as an unwelcome wake-up call regarding the inherent challenges and dangers that walk hand-in-hand with the advent of deepwater oil and gas drilling.

The events call to mind one of my favorite movies, *Apollo 13*, which documents the heroic recovery from sure disaster in outer space. At the time of Apollo 13's mission, 'space shots' had become routine – much as space shuttle missions had become routine in the run up to the Challenger disaster – with world attention coming only with crisis and looming disaster at hand. Similarly, some have come to expect that working safely and efficiently in such deep waters is guaranteed. While technical innovation in the subsea sector does indeed sport an enviable safety and efficiency record, rest assured there is nothing routine about working in the world's deepest waters.

Pundits of expanding oil and gas production around the coastal U.S. were quick to jump on the bandwagon, using the Deepwater Horizon misfortune as a tool to stop progress in discovering and recovering additional domestic sources of oil and gas. While the volume will undoubtedly grow louder, particularly as the Minerals Management Service embarks on its "road show" of public forums to discuss the Obama Administrations recent expansion of Offshore Oil and Gas drilling sites, it will be incumbent upon those most intimately involved in this business: from the oil and gas majors, to the vessel and rig operators, down to the system and equipment suppliers, large and small, to respond in kind.

This man-made tragedy was prefaced with a natural one, when **a volcanic eruption in Iceland** brought air traffic to a virtual standstill in and around Europe. These events serve many purposes, first and foremost as a stark reminder of exactly who (Mother Nature) is in charge. It also served as a means to highlight the value of ship and boat transportation in the modern world. With today's always-online, instant-gratification society, transport on ship and boats may seem an antiquated concept. However, as every reader of this publication surely knows, the water transportation system globally is as vitally important to the overall health and well-being of the world as any other industry. Greg Knowler, who Blogs on **MaritimeProfessional.com** and this month provided to us our cover story on "Slow Steaming" (page 30), wrote a fascinating piece last month that ties the Icelandic volcanic eruption with port and harbor security in the United States! To read an excerpt, turn to page 48, and for the full story log onto www.MaritimeProfessional.com and look for Knowler's contribution.

Finally, I am particularly pleased to announce that **Joe Keefe** has joined our staff as the leading commentator on MaritimeProfessional.com. Many of you know Joe, who has been the editor of the *Maritime Executive* magazine for more than a dozen years, as an insightful maritime journalist who brings a unique persepective to all that he writes. I look forward to working with Joe as we expand our membership level of MaritimeProfessional far above and beyond the current level of 6,000.

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GL: Optimize by Design

Germanischer Lloyd is growing, diversifying its product and service offering, including its expansion of operations in the Americas.

While new regulations regarding the outfitting and operation of vessels may be the bane of owners and operators, it is a boon for organizations such as Germanischer Lloyd (GL), the German-based classification society that can leverage its more than 140 years' experience and global presence – boasting more than 6,800 engineers and experts – to help make a tangle of mandates regarding emissions, vessel upkeep and crew training into a streamlined and sensible business plan. In particular, GL has been a leader in the development and implementation of software solutions that cumulatively are designed to help manage fleets more efficiently to maximize "up time," managing everything from fuel cost to emission reduction, offering a host of "Eco" solutions through its FutureShip affiliate company, solutions which are applied from a ship's inception through its lifetime. For example GL's ECO-Assistant is designed to offer an efficient, accurate solution to guide a ship's crew in selecting the most efficient operating parameters, providing fuel savings without modifying hardware onboard. It does this, for example, by helping the operator to optimize the trim given the vessel, speed, cargo, route and conditions, including water depth. ECO-Assistant is designed as an easy-to-use stand alone program, requiring no interface with the vessel's sensors or software, installed on any computer. The key element for ECO-Assistant in calculating the optimum dynamic trim is a comprehensive database of ship-specific resistance data for a variety of different operating conditions.

According to Dr. Hermann J. Klein, Member of the Executive Board, GL's laser-like focus is centered on the optimization of vessels, whether they are in the conceptual phase or existing ships. On matters regarding fuel consumption and emissions, he notes it is most efficient to address in the design stage. However, **through the its ECO-Solutions service, GL's FutureShip is designed to be a 'one-stop-shop' for engineering optimization studies of a ship**, covering the hull and appendages, as well as the propulsion, fuel systems and onboard machinery and support systems. The advent of 'slow steaming' containerships exemplifies the need for such services. Many of the larger containerships were optimized at higher speeds, up to 25 knots. But a sputtering economy has resulted in a historic lay-up on containership tonnage, and those vessels that do remain in service have largely been slowed down the mid to upper teens range, as owners seek to slash fuel costs and reduce emissions. But a ship designed for 25 knots is surely not optimized for 16 or 17 knots, and GL FutureShip's ECO-Solutions can identify and help to rectify areas that will help owners and operators maximize savings.

GL is also expanding its operations in the Americas, and to solidify and grow its position here, it has relocated its Americas office from Mexico City to Houston. "The American market is very interesting for us, and so far we have not explained the entirety of what we can offer," said Dr. Klein. In total GL has six U.S. offices, with Kevin Coyne serving as GL's Executive VP, Region Americas. According to Coyne, there is a "huge demand" for training activities in the Americas, and in kind it recently opened a local **"GL Academy" for the American market**, offering custom training and education programs across a broad spectrum, which can be "brought right to our customer's doorstep." — *Greg Trauthwein*

CO2 Reduction Technologies

1. Engine System Optimization

(a) Waste heat energy recovery to assist propulsion

The exhaust gas turbine and steam turbine driven by waste heat energy recovered from the main engine exhaust gas efficiently produce electricity for auxiliary motors on the propeller shaft, providing additional propulsion force.

(b) Reduction of CO2 emissions Even during a low-speed voyage

The combination of the turbocharger that can operate at high efficiency even at low rpm and the electronically-controlled main engine reduces CO2 emissions even during a low-speed voyage.

2. Use of fuel additive

The TAICRUSH HD fuel additive jointly developed by MOL Technology Research Center and Taihokohzai Co., Ltd. is designed to ensure more effective ignition and combustion of fuel oil.

3. Reduction of friction drag

The ISHIN-III will adopt the next-generation ultra-low friction ship bottom coating, in which smooth micro patterned indentations form on the painted surface, trapping water and reducing friction drag.

4. Optimum Voyage Support

This system receives the latest marine weather information while monitoring voyage conditions, and searches for the shortest and most fuel-efficient route, in consideration of the vessel's unique characteristics.

5. Propulsion Efficiency

The Propeller Boss Cap Fins (PBCF), an MOL-developed energy-saving device, has been adopted on more than 1,700 vessels all over the world. The upgraded model and high-efficiency propellers will be installed on the ISHIN-III vessels.

6. Optimization of Hull Design

A drastically improved hull form below the surface will enhance fuel efficiency.

7. Use of Renewable Energy

Solar battery panels will be installed on the aft decks. The electricity generated while under way will be used for part of the propulsion force and/or stored in the high-capacity rechargeable lithium ion batteries. This stored electricity can be used while the vessel is in port or berthed.

ISHIN-III

3rd-Generation, Large-Scale Iron Ore Carrier Seeks to Maximize Fuel Economy, Emission Reduction Tech

Mitsui O.S.K. Lines has completed the concept for its third in a series of next-generation vessels, which will be technically practical in the future. The latest concept is for an environment-friendly, large-scale iron ore carrier called the ISHIN-III that is designed to play a key role in future resource transport. MOL already operates the very large iron ore carrier Brasil Maru that offers a high level of environmental performance thanks to its pioneering transport concept and technologies. Delivered in December 2007, the 320,000-DWT Brasil Maru, which measures 1115 x 197 ft. (340 x 60 m) with a main engine output of 23,000 kW, is one of the world's largest iron ore carriers.

Because it will be another several years before ISHIN vessels become technically feasible to build, the company could not give specific cost figures as there are no current plans to construct an ISHIN vessel, according to Yoshikazu Kawagoe, General Manager, Technical Division, Ship Planning and Development Group, Mitsui O.S.K. Lines, Ltd. "However, we believe the construction of an ISHIN-III will become a realistic option once the costs effectiveness of the technical elements has been established and demand becomes more favorable. **In particular, we hope to see the cost of rechargeable batteries and solar panels drop significantly within five years.** There is an ongoing program for the incorporation of specific ISHIN technical elements into our vessels, as they become a cost effective option." The ISHIN-III, which makes full use of the characteristics of that vessel class, is a highly viable concept, aiming to further reduce MOL's environmental burden by maximizing the use of technologies the company has developed and adopted. ISHIN-III's two main features are as follows:

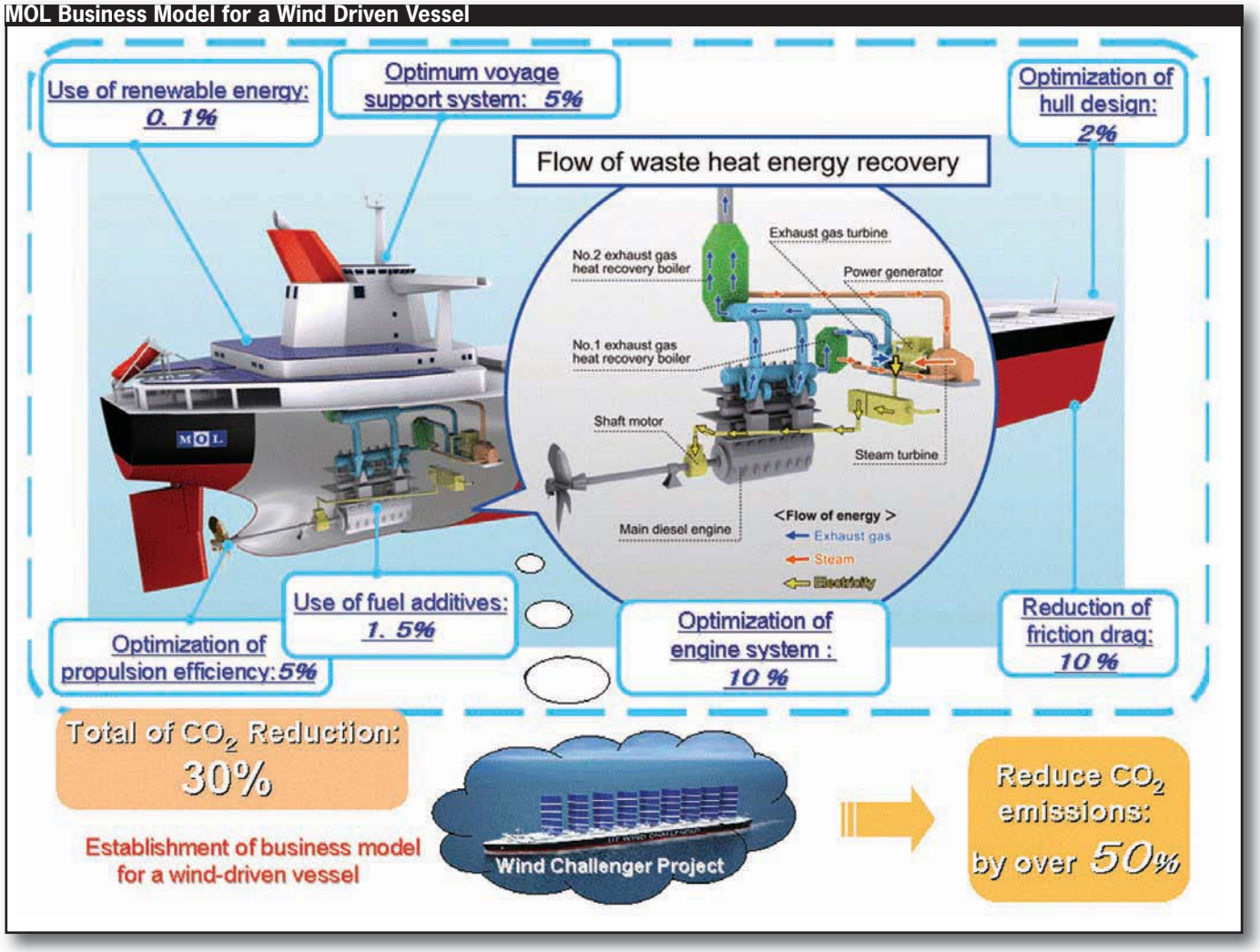
(1) Waste heat energy recovery to assist propulsion: The new concept seeks to maximize waste heat energy recovery with more advanced technology. ISHIN-III will be designed to recover main engine exhaust heat with a high efficiency, to produce electricity to drive the exhaust gas turbine and steam turbine. This electricity is supplied as propulsion to assist motor which propeller shaft equips. In addition to a normal exhaust heat recovery boiler, the ISHIN-III has installed a new exhaust heat recovery boiler to recover energy from the high temperature and high pressure exhaust gas coming from the main engine under the turbo charger. Turbo charger variable nozzle, which optimize amount of air to cylinder, can improve fuel consumption during low speed voyage.

(2) Reduction of CO2 emissions even at low speeds: The combination of a turbocharger that can operate at high efficiency even at low rpm and an electronically-controlled main engine reduces CO2 emissions even during a low-speed voyage. By introducing (1) and (2) and adopting a combination of new technologies, CO2 emissions will be reduced by 30%.

Overall, MOL claims CO2 emissions can be reduced by more 50% when a business model for a "Wind Challenger Project" is established.

The project is development of a wind-driven vessel, led by Tokyo University, MOL, shipbuilder, material maker, Nippon Kaiji Kyokai, and other ocean shipping companies. MOL named the first concept vessel "ISHIN-I (ishin one)," which stands for "Innovations in Sustainability backed by Historically proven, INtegrated technologies." In addition, **ishin is the Japanese word for a complete revitalization or reform.**

MOL Business Model for a Wind Driven Vessel



MarAd $14.7M in Grants for Small Shipyards

Last month the Maritime Administration (MarAd) announced $14.7m in grant awards to help improve 17 small shipyards in 16 states. “Small shipyards are an important part of our nation’s shipbuilding industry,” said David Matsuda, Acting Maritime Administrator. “Shipyards on both coasts, the Great Lakes and our inland waterways will be able to increase productivity and be more competitive as a result of these grants.” The following shipyards will receive grants for equipments:

- **Boothbay Harbor Shipyard, LLC** (Boothbay Harbor, ME) - $360,900 for new wider cradle for 750 ton marine railway
- **C&G Boat Works, Inc.** (Mobile, AL)- $1,199,122 for new 220 ton crawler crane
- **Caddell Dry Dock & Repair Company, Inc.** (Staten Island, NY)- $1,162,636 to refurbish drydock
- **Chesapeake Shipbuilding Corporation** (Salisbury, MD)- $519,098 for improvements to doors, heaters and air and gas distribution systems
- **Detyens Shipyards, Inc.** (Charleston, SC)- $922,393 for new tower crane, hydro-blast units and overhead shop cranes
- **Diversified Marine Tech, Inc.** (Tampa, FL)- $644,425 for 90-ton crane and modification of barge for crane use
- **Earl Industries, LLC** (Portsmouth, VA)- $923,496 for laser cutter and two 5-ton bridge cranes
- **Fraser Shipyards, Inc.** (Superior, WI)- $257,990 for cutting machine and welding equipment
- **Gulf Craft, LLC** (Patterson, LA)- $1,760,065 for 500-ton travelift crane
- **JB Marine Services, Inc.** (St. Louis, MO)- $195,000 for bridge crane, ironworker, steel shear, and forklift
- **Marisco, Ltd.** (Kapolei, HI)- $1,079,224 for cranes, forklifts, welding machines, compressors and dust collector
- **Puglia Engineering, Inc.** (Bellingham, WA)- $1,333,267 for floating drydock enhancements, 80-ton rough terrain crane and coating equipment
- **Sause Bros., Inc. dba Southern Oregon Marine, Inc.** (Coos Bay, OR)- $173,749 for water blast system, sandblasting machine and big top shelter
- **Southwest Shipyard L.P.** (Channelview, TX)- $1,602,870 for panel line
- **The Thames Shipyard & Repair Company, Inc.** (New London, CT)- $1,446,000 to widen and lengthen drydock
- **United States Marine, Inc.** (Gulfport, MS)- $476,670 for epoxy oven, composite freezer and CNC material cutter

The following will receive grants for training programs:

- **Pacific Fishermen Shipyard and Electric LLC** (Seattle, Washington)- $643,095 for worker training program, sand blast paint and booths, sand blast grit recovery systems, man lifts and 15-ton crane.

Shipyard Acquisition

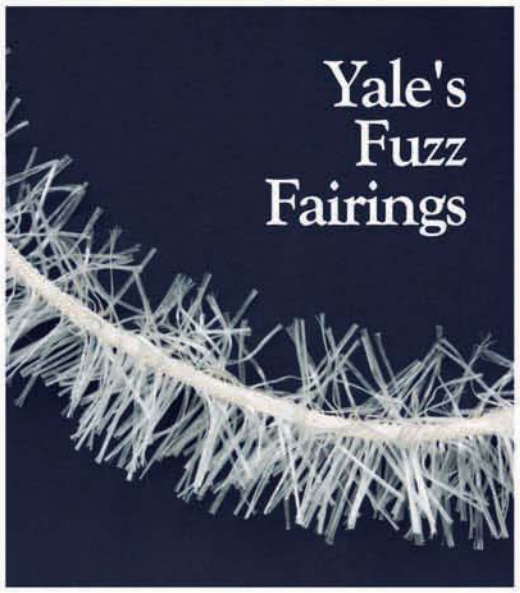
Keppel Fortifies Brazil Operations

Keppel Offshore & Marine Ltd (Keppel O&M), through its wholly-owned Brazilian subsidiary, Navegantes Maritime Construction and Services, entered into an agreement with Brazil's TWB Group to acquire the Estaleiro TWB shipyard in Navegantes, Santa Catarina. This acquisition is subject to the fulfillment of conditions by TWB Group.

This 7.6-ha shipyard will be operated by Keppel O&M's specialized shipbuilding arm, Keppel Singmarine. It has a 300-m long waterfront and is equipped with a slipway, pipe and hull shops and an outfitting quay. Keppel O&M's total investment in the yard, including further capital expenditure to upgrade and modernize the facility, will be in the region of about $50m. "Our latest acquisition reinforces Keppel O&M's Near Market, Near Customer strategy, and complements our BrasFELS yard in Angra dos Reis in offering a slew of comprehensive solutions for Brazil's offshore oil and gas sector," said Chow Yew Yuen, President (the Americas) of Keppel O&M. "Petrobras has announced plans to charter some 147 locally-built Offshore Support Vessels over the next five years, with at least 70% of the work on each newbuild to be carried out within the country. Through this new facility, we will bring our specialized shipbuilding expertise to the doorsteps of Brazil's offshore field development market to help satisfy the demand for robust support vessels." To be named Keppel Singmarine Brasil, the new yard will focus on the construction of Offshore Support Vessels such as Anchor Handling Tug Supply vessels, Platform Supply Vessels, Oil Recovery Support Vessels and harbour tugs, among others. It will also be equipped to undertake the fabrication of offshore modules, which will be an added advantage for Keppel to support the execution of major projects at the BrasFELS yard.

The modernization program planned for Keppel Singmarine Brasil will include upgrading the existing slipway, as well as constructing a new slipway, a wharf, heavy lift gantry cranes and pipe and hull shops fitted with modern machinery and equipment. Keppel's new yard is expected to be operational by the second half of 2010. At full capacity, it is estimated to be able to complete an average of eight vessels a year.

"...and you thought we just made rope..."



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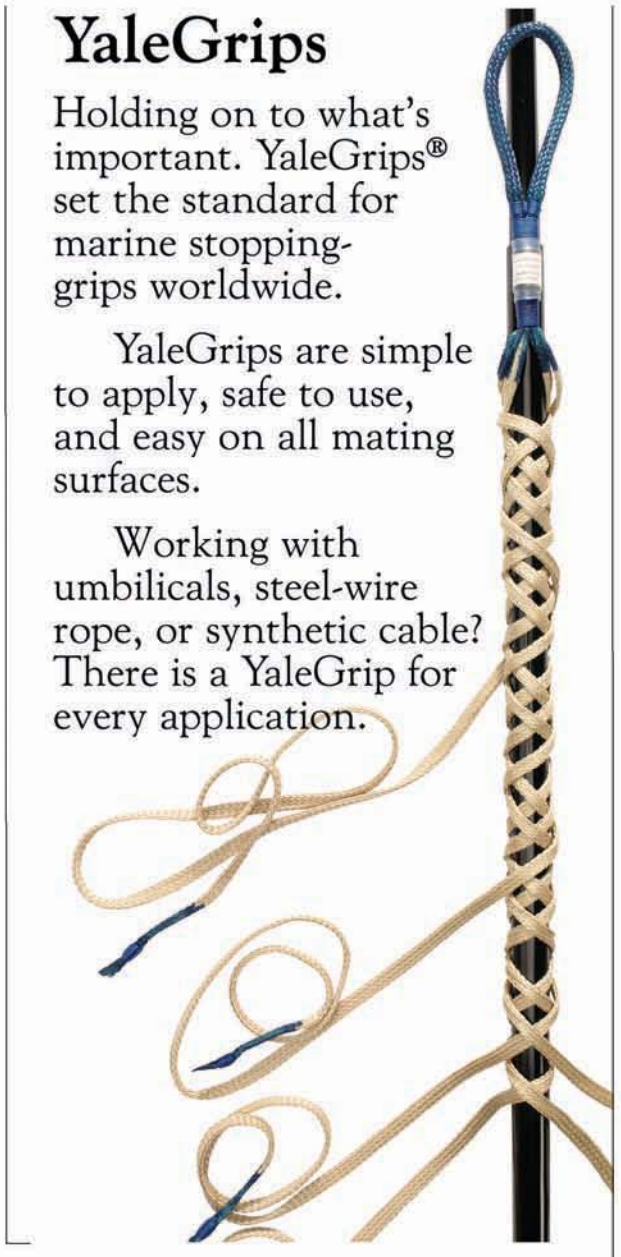
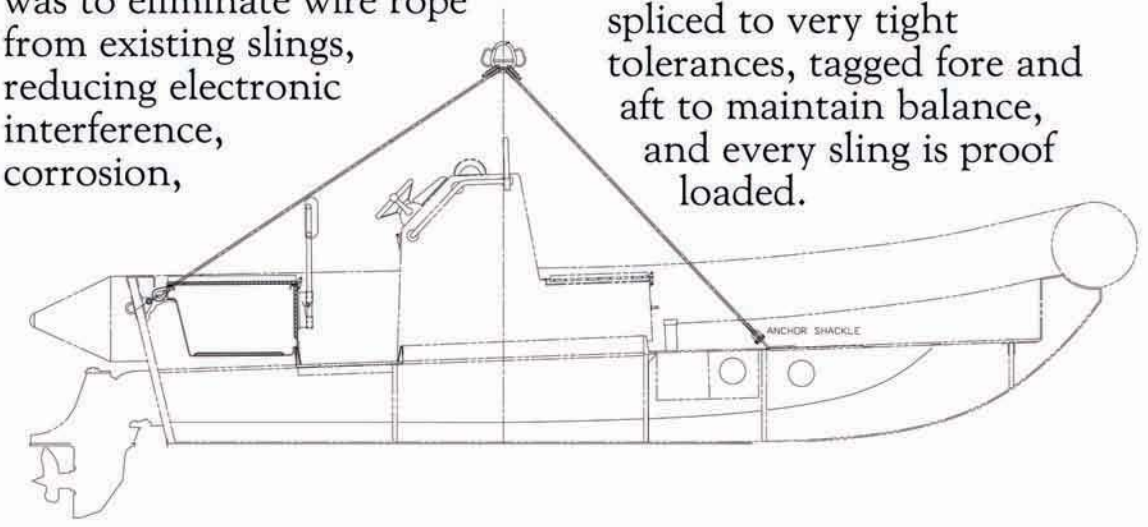


Four-Leg RIB Boat Slings

These slings were developed in conjunction with NSWC Carderock Division to handle RIB Boats. The goal was to eliminate wire rope from existing slings, reducing electronic interference, corrosion, wire fish hooks and generally engineering a much safer system.

The individual legs are spliced to very tight tolerances, tagged fore and aft to maintain balance, and every sling is proof loaded.



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Northrop Grumman Redelivers

USS Enterprise

Northrop Grumman Corporation redelivered the world's first nuclear-powered aircraft carrier, USS Enterprise (CVN 65), to the U.S. Navy. The redelivery follows the completion of an Extended Drydock Selected Restricted Availability (EDSRA). The project is the ship's last dry docking before deactivation and was performed by the company's Shipbuilding sector in Newport News, Va. "Enterprise is an extremely complex ship that required an extraordinary effort on the part of the shipbuilding team and the ship's crew to get her through the availability and back in the fight," said Capt. Ron Horton, Enterprise's commanding officer. "The relationships that were built between my crew and the shipbuilding team will last a lifetime. This truly was an amazing performance by everyone, and it has been the highlight of my career to have been a part of it." The carrier, which departed for sea trials on April 17, returned to Naval Station Norfolk flying a broom on its mast to signify a clean sweep and a successful sea trial. Sea trials are conducted to test systems, components and demonstrate operations at sea. The trials also include high-speed runs and a demonstration of the carrier's other capabilities. Work during the EDSRA included dry docking work, tank blasting and coating, hull preservation, propulsion and ship system repairs and limited enhancements to various hull, mechanical and electrical systems. USS Enterprise is the world's first nuclear-powered aircraft carrier and the only ship of its class. It was built by Newport News and joined the U.S. Navy's fleet in 1961. Northrop Grumman has been responsible for accomplishing the majority of scheduled and emergent maintenance on USS Enterprise since 1994.

(Photo courtesy Northrop Grumman)

Recent Ship Sales

(Source: Shipping Intelligence, New York, NY)

Date	Name	DWT	YB(age)	Price
Bulk Carriers				
03/23/10	ADAMASTOS	17,792	86(24)	$4.7
03/15/10	EASTERN GRACE	18,849	05(5)	$17.5
03/15/10	WESTERN GRACE	18,849	05(5)	$17.5
03/15/10	CLIPPER SENTOSA	20,741	99(11)	$13.8
03/01/10	STARHILL	21,310	81(29)	$2.2
03/23/10	VITAFAITH	23,258	84(26)	$5.1
03/01/10	SEA POWER	23,900	80(30)	$2.5
03/10/10	ARMELLE	26,616	84(26)	$5.3
03/01/10	CS MONTROSE	27,028	01(9)	$17.5
03/31/10	TOLMI	27,476	80(30)	$2.9
03/23/10	HEDWIG	28,050	10(0)	$27.2
03/01/10	INCE MARMARA	28,352	08(2)	$25.5
03/10/10	SUNNY ROYAL	28,407	00(10)	$19.3
03/23/10	QUEEN ASIA	28,450	96(14)	$15.8
03/01/10	CLIPPER LAKE	28,492	01(9)	$18.9
03/23/10	POS BRAVE	28,657	04(6)	$21.7
03/23/10	OCEAN BEAUTY	28,666	97(13)	$17.7
03/10/10	POS AUCKLAND	28,678	03(7)	$20.6
03/31/10	DARYA SUR	28,814	97(13)	$17
03/10/10	COSTIS	29,112	84(26)	$5.7
03/10/10	SILVRETTA	29,721	03(7)	$23
03/10/10	SILVAPLANA	29,721	03(7)	$23
03/15/10	EASTWIND YATES	29,800	10(0)	$27
03/15/10	EASTWIND YORK	29,800	10(0)	$27
03/10/10	UBC STAVANGER	31,751	04(6)	$23.6
03/01/10	NORD RIO	31,883	07(3)	$26
03/10/10	NIPHA NAREE	33,024	84(26)	$5.8
03/01/10	EAST SUNRISE TAIZHOU	37,687	84(26)	$7.2
03/29/10	STAR PROVIDENCE	40,698	85(25)	$11
03/29/10	SJN INTREPID	43,648	94(16)	$18.4
03/29/10	ZSQ STAR	45,384	86(24)	$7.4
03/29/10	MATHIOS	46,678	96(14)	$20.5
03/23/10	STELLAR MERMAID	48,821	90(20)	$10.7
03/10/10	KEN GALLANT	48,913	99(11)	$23.5
03/23/10	THIA MATINA	52,380	93(17)	$13.5
03/01/10	SINOVA	53,500	09(1)	$35
03/01/10	BORAK	53,500	09(1)	$35
03/01/10	INTA	53,500	09(1)	$35
03/01/10	SPICE	53,500	09(1)	$35
03/10/10	GLORY GUANGZHOU	64,975	85(25)	$11.5
03/23/10	TRANSGIANT	71,665	93(17)	$22
03/15/10	MAKIKI	73,049	97(13)	$27
03/15/10	CATRIENA	73,829	98(12)	$27.5
03/10/10	BAHIA BLANCA	74,043	98(12)	$27.8
03/23/10	F.D. CRIS DE ANGELIS	74,408	07(3)	$38
03/15/10	AFRICANA	75,592	02(8)	$33.6
03/23/10	BELO HORIZONTE	76,801	04(6)	$33
03/23/10	BETIS	76,801	04(6)	$33
03/23/10	BAHIA	76,801	04(6)	$33
03/23/10	PHILIPINE EXPRESS	82,509	08(2)	$44
03/23/10	PERUVIAN EXPRESS	82,655	07(3)	$44
03/31/10	DURA	105,496	81(29)	$7.4
03/31/10	NAVIOS AURORA II	169,031	09(1)	$110
03/01/10	NORD-KRAFT	171,199	00(10)	$42.5
03/15/10	MINERAL CAPEASIA	174,101	05(5)	$54.5
03/29/10	CHINA VENTURE	177,808	05(5)	$55
03/23/10	NORD ENERGY	180,310	04(6)	$60
03/10/10	SEA VICTORY	180,310	04(6)	$62
Car Carriers				
03/15/10	BOHEME	28,126	99(11)	$50
Chemical Carriers				
03/01/10	GEMPORT 2	6,555	98(12)	$5.9
03/31/10	EASTERN FORTITUDE	8,727	00(10)	$9
03/31/10	SHOSHUN	8,816	99(11)	$7.5
03/01/10	GAN-SWORD	16,745	07(3)	$18.5
03/23/10	GAN-OCEAN	16,745	07(3)	$18.5
03/10/10	BUNGA SEMARAK	16,924	90(20)	$2.5
03/15/10	LISTA	27,892	95(15)	$7
03/10/10	TEAM ANEMONIA	40,258	95(15)	$4.5
Containerships				
03/23/10	ERKUT A	7,676	85(25)	$1.4
03/15/10	ERKUT	7,705	85(25)	$1.4
03/15/10	GRAND OCEAN	8,888	98(12)	$6.9
03/01/10	VIVALDI	12,750	83(27)	$2.3
03/01/10	CAPE HENRY	12,854	92(18)	$3.5
03/15/10	TROPIC ATLANTIC	13,702	03(7)	$12.8
03/01/10	RHONEBORG	20,028	93(17)	$3.7
03/23/10	OCEAN LADY	23,679	04(6)	$16.6
03/01/10	ALGARROBO	34,700	09(1)	$28
03/01/10	ANGELES	34,700	09(1)	$28
03/23/10	LAUSANNE	38,200	03(7)	$24.4
03/01/10	NAUTIC	38,500	96(14)	$11.9
03/23/10	MARITIM FRANKFURT	44,510	93(17)	$8.5
03/23/10	MARITIM KIEL	44,585	94(16)	$8.5
03/23/10	CMA CGM RAVEL	79,465	01(9)	$35
03/23/10	CMA CGM BIZET	80,238	01(9)	$35
03/23/10	CMA CGM DEBUSSY	80,251	01(9)	$35
03/10/10	NYK ANTARES	81,819	97(13)	$17.5
03/10/10	NYK ANDROMEDA	81,819	98(12)	$17.5
03/10/10	NYK CASTOR	82,275	98(12)	$17.5
03/10/10	NYK CANOPUS	82,275	98(12)	$17.5
03/10/10	NYK SIRIUS	82,275	98(12)	$17.5
Gas Carriers				
03/31/10	GAS PRODIGY	3,930	95(15)	$6
RoRo				
03/31/10	RANINE	4,322	77(33)	$2.2
03/31/10	TAURINE	4,322	77(33)	$2.2
Tankers				
03/01/10	NISSHO I	4,993	97(13)	$5
03/10/10	ZOJA I	28,610	88(22)	$4.3
03/10/10	ZOJA II	28,610	89(21)	$4.3
03/15/10	JAGUAR V	29,998	90(20)	$7.6
03/15/10	VUJAYANTI	31,259	98(12)	$11
03/01/10	CHINOOK	38,695	01(9)	$8.5
03/15/10	AGIRONISSOS	45,425	92(18)	$9.5
03/23/10	SALVIA EXPRESS	45,811	06(4)	$27
03/29/10	SEA SAPPHIRE	96,173	94(16)	$12.5
03/23/10	FORWARD BRIDGE	105,162	98(12)	$23
03/31/10	AROSO	107,500	10(0)	$52.5
03/01/10	NORTHERN SPIRIT	112,827	09(1)	$50
03/01/10	PACIFIC SPIRIT	113,010	08(2)	$50
03/10/10	MILTIADIS M II	162,397	06(4)	$71.3
03/23/10	TITAN CHIOS	239,783	86(24)	$14.5
03/23/10	TITAN SCORPIO	265,551	86(24)	$14.5
03/23/10	TITAN MERCURY	275,341	89(21)	$18
03/23/10	SUVA	279,984	93(17)	$15
03/10/10	AL AWDAH	284,533	91(19)	$15
03/10/10	AL TAHREER	284,533	92(18)	$15
03/10/10	AL SHUHADAA	285,117	92(18)	$15
03/23/10	CRYSTAL ACE	285,365	94(16)	$17
Tweendeckers				
03/31/10	PORT DOURO	5,200	92(18)	$3.5
03/01/10	ORIENTAL RIVER	6,650	86(24)	$2.1
03/01/10	RED RIVER	6,686	86(24)	$2.1
03/23/10	LONG XUYEN	6,929	90(20)	$2.6
03/31/10	INTER NOBLE	7,583	90(20)	$3.1
03/31/10	ESRA E	8,035	83(27)	$2
03/23/10	MARINE AMETHYST	8,257	97(13)	$5.4
03/23/10	CHIYUU	8,977	95(15)	$5.8
03/23/10	STARIS	9,650	85(25)	$2.2
03/15/10	AFRICAN TRADER	11,243	82(28)	$1.9
03/23/10	FAR EAST	15,175	82(28)	$1.5
03/23/10	THOR SEA	16,226	85(25)	$2.6
03/31/10	WEALTHY STAR	16,979	91(19)	$4.5

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Colonna's Shipyard Expands

Colonna's Shipyard, Inc. of Norfolk, Va. announced an expansion, the new West Yard Marine Travelift Facility. Situated on 10 acres, it will accommodate the simultaneous repair of up to 15 vessels including tugs, barges, ferries, workboats, and yachts. Featuring one of world's largest mobile hoist, a 1,000 metric ton Marine Travelift, it is designed as a rapid response facility providing immediate repair and a timely return to service. The Marine Travelift acquisition was partially enabled by a grant award from the Maritime Administration Assistance to Small Shipyards Program. The West Yard Marine Travelift facility equips Colonna's Shipyard to respond immediately to vessel repairs on an emergent basis. It also allows longer term projects to remain efficiently drydocked. The Marine Travelift system is capable of lifting many other vessel types such as U.S. Navy and USCG patrol craft, in addition to specialty vessels such as casino and dinner boats. With two concrete slipway piers extending 325 ft. into the river, lay berth accommodation is met with full utility service and crane service for side-to loading.

www.colonnaship.com

Incat Crowther Powers World Waterski Record

(Photo courtesy of Laurie Reiner)

Incat Crowther supported the Horsehead Water Ski Club as it recently set a new water ski world record on March 28, 2010. The club had already set the mark of pulling 120 skiers from a deep start in January this year (the most ever pulled behind one boat), but with "only" 99 making it through the required nautical mile it was two skiers short of setting a new record. For the successful attempt in March, the club managed to get 116 skiers started and still had 114 up at the conclusion of the nautical mile, smashing the 100 skier mark set in 1986. The record was set behind "Eagle", an Incat Crowther designed 36m Catamaran Tour vessel that operates in Strahan, Tasmania. The vessel was fitted with a custom fabricated boom across its stern to spread the large number of skiers out. Incat Crowther provided structural design support for the boom and provided detail drawings for the manufacturing of all components and attachment points. **www.skirecord.com**

MHI LNG-FPSO Approval for Two Tank Types

Mitsubishi Heavy Industries, Ltd. (MHI) completed development related to floating production, storage and offloading units for liquefied natural gas (LNG-FPSO), and has obtained two kinds of approval in principle (AIP) from major international ship classification societies. In tandem with intensified activity in medium- and small-scale offshore gas field development, demand for LNG-FPSOs, a new method of gas production offering movable capability, has been increasing globally. Boosted by the new recognition of the safety and reliability of its proposed units, MHI will now begin aggressive marketing activities toward construction of the world's first LNG-FPSO.

The first AIP is for an LNG-FPSO concept that adopts MOSS type spherical storage tanks. It was obtained from Lloyd's Register of Shipping (LRS) MHI plans to propose LNG-FPSOs incorporating the MOSS type tanks to medium-scale gas-field development projects with one to two million tons per annum (MTPA) production capacity, a sector where large demand is expected.

The MOSS type tank has been generally considered unsuitable for LNG-FPSOs due to its hemispherical shaped dome, which impedes providing enough space for the topside plant on the deck. MHI has solved this problem by enlarging the tank size and reducing the number of tanks required so that enough flat deck space for the topside plant can be secured.

The other API is for an independent prismatic tank categorized as International Maritime Organization (IMO) Type B*1, which satisfies international rules applied to gas carriers (IMO Gas Code); it was obtained from three classification societies: LRS, American Bureau of Shipping (ABS) and Nippon Kaiji Kyokai (ClassNK) of Japan. MHI expects solid demand for this type of LNG-FPSO mainly for gas fields with more than 3 MTPA production capacity. Although the independent prismatic tank type B LNG-FPSO is considered costly than the MOSS type or membrane type, in which the ship hull itself functions as the tank's supporting structure, it is capable of providing more deck space for the topside plant than the MOSS type.

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DAMEN STAN PATROL 2600 - BUILT UNDER LICENSE BY BOLLINGER SHIPYARDS
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MAN Diesel Powers Fall-Pipe, Rock-Dumping Vessel

Construcciones Navales del Norte (La Naval de Sestao) of Spain's Basque country delivered the Simon Stevin to Jan de Nul in February. Driven by a diesel-electric propulsion system comprising a series of MAN Diesel 32/40 engines, the new addition to the Belgian group's fleet is **claimed to be the world's largest fall-pipe and rock-dumping vessel with a capacity of 19,500 cu. m.**

Construction of the ship lasted 26 months, with keel-laying taking place in April 2008 and launching in March 2009. The Simon Stevin recently departed for Australia for its first commercial projects. The Simon Stevin is powered by five MAN Diesel nine-cylinder 32/40 main engines. Each delivers 4,500 kW at 720 rpm and is manufactured by STX Engine Co., Ltd., MAN Diesel's Korean licensee. The five engines comprise a diesel-electric power plant that generates enough electricity to power a city of 130,000 people, according to the ship owner.

The Simon Stevin will mostly be deployed in offshore applications, such as the laying of oil and gas pipes at great depths; the vessel can level the seabed and dump rocks down to a depth of 2,000 m. According to Jan de Nul, the fall pipe can process rocks with a diameter up to 400 mm.

The fall pipe has an advanced, fully automatic unfolding system, featuring an ROV (Remotely Operated Vehicle) at its bottom that accurately corrects its position. The 298.5-ft vessel has a 33,500 tons loading capacity, some 25% greater than the previous record-holder, and is capable of dumping 2,000 tons of rock per hour. The Simon Stevin can accommodate more than 70 persons and has its own helipad.

The four-stroke engines run on HFO and are capable of continuous operation at loads down to 20%; running at even lower loads is possible for limited periods, thanks to the engine's optimized design. The 32/40 can also accept overloads of 10% in conditions characterized by frequency variation. As the Simon Stevin is subject to a dynamic load demand, high and sharp load variations can also occur. Accordingly, each engine is fitted with a so-called "jet assist" device that enables a quick response to such variations by injecting compressed air directly into the compressor wheels of the turbochargers.

Propellers Fit for a "Queen"

Roll-Royce Completes Carrier Propulsion Package

Rolls-Royce completed two milestones for the Royal Navy's new aircraft carriers, Queen Elizabeth and Prince of Wales, with completion of the first propeller and the successful testing of the vessels' first MT30 gas turbine. The propeller, measuring almost 23 ft. in diameter and weighing 33 tons, has completed acceptance tests at the Rolls-Royce facility in Kristinehamn, Sweden. The Kamewa Adjustable Bolted Propeller is manufactured from nickel aluminium bronze and features five blades mounted on a central hub – there will be two on each of the aircraft carriers. Rolls-Royce is also supplying shaft lines which will link each of the vessels' two propellers with the power source. Each propeller will deliver around 50,000 hp. The first of four MT30s for the two 65,000 ton vessels also passed a program of tests and certification at the Rolls-Royce Marine test facility, in Bristol, where the gas turbine was operated across a range of load conditions up to the maximum power output of 36MW. Rolls-Royce is part of a 'sub-alliance' team comprising Thales, Converteam and L-3 and has overall responsibility for delivery of the entire power and propulsion system.

Converteam

Pushing the Electric Propulsion Envelope

Converteam UK Ltd. released initial details of what it calls a revolutionary new concept in the field of electrical ship propulsion, a concept which it believes is set to push the power envelope of what is achievable in low cost, low voltage (690V) systems. The new configuration, known as Dual Active Front End (D-AFE), **will feature in a Gusto MSC designed NG-9000C-HPE wind turbine installation jack up vessel (pictured)** which is under construction at Drydocks World SE Asia's Graha yard. Converteam's delivery responsibility for this vessel includes for the design supply and commissioning of an integrated electrical package which comprises major elements of: Power generation; Power distribution; 3 x azimuth thruster drive trains; 3 x tunnel thruster drive trains; Dual redundant C-Series Dynamic Position (DP) control system; and,Vessel Control System (VCS)

For many years manufacturers of variable frequency drives have offered transformerless Active Front End solutions. Converteam's MV3000 is one such drive and it features the characteristic IGBT power semiconductors which are used in a fully controlled rectifier instead of "traditional" uncontrolled diode bridges.

D-AFE builds on the advantages of AFE and is particularly suited to offshore vessels in which reliability and resistance to single point failures are critical considerations. Dynamically positioned vessels in the DP2 or DP3 category are vessels which are likely to derive the most immediate benefits from D-AFE. Each inverter being fed by both switchboards is capable of operating based on a supply from either one of them or from both together. In consequence thrusters, generators and switchboards can be rated such that a worst case failure of, for example, an entire switchboard results in the loss of no thrusters but does mean that 50% of total available power is lost.

By wholly separating the two switchboards, and eliminating all physical links between them, each thruster drive is configured such that it can operate continuously even in the event of the loss of an entire switchboard. "The benefits of this approach are potentially massive" said Neil Barford, Offshor & Merchant Business Manager at Converteam UK Ltd. "D-AFE allows us to greatly extend the power range that's available in a low voltage configura-tion; that not only cuts the initial costs of system purchase but it also means that through life costs are lower too since on board personnel costs are lower for LV trained crew".

Barford said "Class 2 and Class 3 DP vessels always focus on what happens to DP station keeping in the event of a worst single case equipment failure. In the case of a Converteam D-AFE system a worst case failure of a whole switchboard would no longer result in the loss of 50% of thrusters. Now the worst case single point failure typically reduces to being the loss of the single most significant thruster."

Freshwater generation – a story of savings

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The Vital Role of the

Marine Surveyor

by Richard DeSimone, President, Travelers Ocean Marine and Kord Spielmann, Technical Director, Travelers Ocean Marine Risk Control

In any substantial transaction, several professionals may become involved to make sure that it is concluded successfully. When it comes to real estate, for example, it takes a real estate agent to make sure the deal follows accepted practices, an inspector to report on the property's condition and an appraiser to evaluate its worth. When insurance coverage is being arranged in the marine industry, a parallel set of skills is usually found in a single professional: the ship surveyor. As the person who delivers an expert opinion on a vessel, a capable and thorough surveyor is vitally important to the interests of the underwriter, insurance agent and ship owner. In fact, a responsible ship owner soon learns that when a surveyor's job is done well, it can be a vital asset to the company's operations.

A marine surveyor prepares a report for insurance underwriters that assesses three things: 1) the general condition of the vessel; 2) the value of the vessel in the current market; and 3) ways to lessen the exposure to risk.

The assessment of the condition of the vessel begins with the hull, the engine, the navigation system and other physical components of the ship. Is the engine in good condition? Is the radar operational? Do the lights work? A competent surveyor will actually fire up the systems and make sure that a vessel is seaworthy at the time the survey is being conducted.

A good survey, however, is not limited to these physical, although highly important, aspects. The crew, the company's operational practices and safety measures all come into play. For example, a surveyor will determine whether the crew has the proper training and experience to operate the ship in the intended trade. A licensed captain who has extensive experience in pushing barges up and down inland rivers may not be viewed by insurance underwriters as the best choice if he has been hired to manage a tug pulling loads from Florida throughout the Caribbean. Overall, the surveyor will look at whether the crew has the skills necessary to complete an operation without endangering the ship, injuring themselves or others, or destroying property. A surveyor also can be expected to determine if a ship owner is investing in safety measures and training, good mechanical maintenance and upkeep, and other indicators of sound business practices. A company that pays little attention to such factors can be viewed by insurance underwriters as more likely to be lax in other ways that lead to greater exposure to risk. The second assignment for the surveyor is to determine a market value for the vessel. This takes not only expertise to determine the condition of the ship, but also a great deal of knowledge about local market conditions. Two ships in similar condition and ready for the same type of work may have widely different values if one is in New York and the other is in New Orleans. Sometimes, an owner may request a higher valuation than the surveyor feels is justified. In one case, a company had purchased a ship for $1.5 million and invested another $4.5 million in retrofitting it. The surveyor determined the ship was worth about $3.5 million, but the owner wanted to protect the upgrade investment. In this kind of situation, the surveyor can work with the owner, the broker and the carrier's underwriter to arrive at an agreed valuation.In addition, the potential for fraud can even be noted in a survey report. For example, a company that has huge debt and little business lined up could be deemed a "moral hazard" if it is requesting an above-market value for the coverage on its vessels. In a difficult market environment, a company's interest, unfortunately, may become more focused on what it can get in claim payments than what it can earn from conducting business.

Managing Risk

A thorough survey report also addresses how risk can be reduced. This may include recommendations to improve safety training for the crew, critical maintenance that needs to be performed, or the identification of operational issues that need to be corrected. With a focus on avoiding or minimizing potential accidents, a relatively modest expense to control risk now can have a big payoff down the road. Sometimes a survey can antici-

pate future exposures that may have been overlooked. For example, when insurance is sought for a boat under construction, a surveyor may not only assess the building plans and the shipyard's competence, but also identify potentially problematic details such as whether adequate launch facilities are available. The failure of a yard to be able to launch a completed ship in one case resulted in a lawsuit.

Getting the Most Out of a Survey

There is no great mystery about why insurance underwriters need a competent survey report. They want to have solid data when they make judgments about what kind of coverage to offer and how to price a policy in accordance with the risk involved. The underwriters rely on surveyors to be knowledgeable about a vessel's condition, the operational practices of the company and the potential market value of the vessel as determined by geographic location, vessel use and other factors. Along with the ship owner and the agent, underwriters view the surveyor as a key member of the risk management team that seeks to properly identify and control maritime hazards and exposures, resulting in a safely operating maritime operation. What may be less obvious is how important the surveyor can be to the insurance agent or broker. In his role as a matchmaker, the agent is responsible for finding the right carrier to provide not just insurance but also risk management advice, streamlined claims handling and other services that will keep his customer's business running smoothly. As a result, the agent looks to the surveyor as the expert who can help establish the relationship between customer and insurer so there are no misunderstandings down the line. The surveyor can verify his customer's ability to operate a ship properly. The surveyor's report establishes that a ship can perform as expected for the company's planned use of the vessel. The report also avoids uncertainty for the agent's customer by establishing the value of the vessel ahead of time in the event a claim has to be filed. Finally, a smart ship owner also sees value in the surveyor's work. Any shortfalls identified in a survey can help a ship owner rectify poor practices or physical problems with a vessel. After all, most ship owners are interested in moving people or cargo efficiently and want to do all they can to avoid machinery failure, crew error and other problems. At its foundation, the role of a marine surveyor is to both gather data and recommend steps to reduce risk. The report the surveyor produces can have a huge impact when the parties involved make the best use of its contents. The underwriter needs it to put together the right coverage at a fair price. The broker needs it to be sure he is arranging the best coverage for his customer. And the ship owner can use it to improve operations. The end result: when a surveyor's job is done well, it is a vital asset to the ship owner, the underwriter and the agent.

About the Author

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Kord Spielmann, Technical Director, Travelers Ocean Marine Risk Control

More than Licenses

By Alan M. Weigel, Esq., Blank Rome LLP

It is a rare situation when the investigation into a maritime casualty, or the litigation that often ensues, does not focus on some aspect of the training and qualifications of some member of the vessel's crew. The first question a Coast Guard investigator will ask a crew member involved in a casualty is to produce his licenses. The first questions the crew member will be asked when he is on the witness stand will be about his training and experience.

These inevitable questions are asked because of several considerations. First, most accidents generally involve some error on the part of a crew member which casts doubt about his competence. Some errors may be so extreme as to raise a presumption that the offending crew member was not adequately trained. There also is a well established principle of maritime law that a vessel owner has a non-delegable duty to man his vessel with a competent master and crew. What this means is that the vessel owner has an absolute obligation to ensure that the crew that it hires have the training, qualifications, and experience to safely operate its vessel in the conditions expected to be encountered on the vessel's intended voyage.

In fulfilling this obligation, the vessel owner is expected to exercise "due diligence." In other words, in selecting a competent crew, the vessel owner must use due and proper care and cannot "close his eyes" to what prudent inspection would disclose. An owner must therefore avail himself of whatever means of knowledge are reasonably necessary to prevent conditions that are likely to cause accidents or losses. Anything less than a competent crew will expose the vessel owner to the charge that his vessel was unseaworthy, and could make him fully liable for any losses that result from a casualty to the vessel or its cargo.

Unseaworthiness may also result from improper operation or maintenance of equipment or other related failures which make the vessel ill-suited for its duties at sea. These concepts are related to crew competence, however, because negligent operation of a vessel often results from improper training of the crew.

An obvious area of inquiry into potential crew members' competency is their training and qualifications. Detailed standards for qualification and training are part of the STCW Convention and most flag-state license and training regulations. All too often, however, vessel owners end their inquiry after satisfying themselves that a candidate has the statutory minimum required certificates and his licenses are current. If a casualty occurs, the failure to make any further inquiries into competence beyond certificates and licenses can result in a vessel owner being found not to have manned its vessel with a competent crew.

An important area of inquiry that is often ignored during the candidate vetting process is whether the potential crew member's experience is adequate for the conditions the vessel is expected to encounter during its voyage. Casualties have often resulted from otherwise qualified crew facing unfamiliar conditions for the first time. In one case, for example, a tug crew with a great deal of experience sailing southern waters was found incompetent to crew a similar tug during a winter time trip on an icy river.

It also is important to evaluate how a potential candidate performed during those prior experiences. Most often this is accomplished by making inquiries into the evaluations the candidate received from his former employer or by requiring the candidate to provide recommendations as to his experience and competency. The essential element in this area of inquiry is to obtain adequate proof of a candidate's experience and reputation for competence and to ensure that experience is adequate for the vessel and its planned voyage.

The final step in the vetting process should be a check of the candidate's knowledge through a comprehensive technical interview in which the technical ability of the candidate is assessed by a qualified mariner with the relevant command-level experience, either a master or chief engineer. This interview gives the vessel owner its last opportunity to satisfy its due diligence duty to ensure the potential crew member is competent. The technical interview also gives the vessel owner the opportunity to assess the additional training the new crew member will need in the future to maintain his competency.

Too often, crew competency is considered a static characteristic. But crew members who are competent when they are hired may not retain that competency for the entire term of their contract. Equipment is often upgraded and the vessel's crew may not be familiar with the changes. A vessel's trading routes may change, taking its crew into unfamiliar waters. The STCW Convention recognizes that familiarization training is necessary when a new crew member reports to a vessel. Consideration should be given to using the same type of familiarization training for assigned crew members when the vessel's equipment and operations change.

A mariner's skills are perishable. Skills that are not used on a regular basis because they are not required by the vessel's routine operations can atrophy. When called upon to use those skills in an emergency, the mariner may not perform up to the expected standards. Lifeboat operations is an example where accidents and injuries occur all too frequently because the skills needed to safely launch and retrieve lifeboats are not exercised routinely. Consideration must therefore be given to providing crew members with more than the train-

Crew Competency Requires Continuous Training and Performance Monitoring

About the Author

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ing necessary to maintain their certificates and licenses current. Training also should be geared to improving watch standers performance of critical tasks and maintaining critical skills. To accomplish this, vessel owners should consider using training courses to the greatest extent possible, even those that are not required by STCW mandate. On-board training should also be considered as a means to maintain critical skills at the required levels of competency.

While it is possible to estimate the competency of a vessel's crew by examining their experience and licenses, perhaps the best measurement of crew competency is their performance as crew members. On board performance monitoring is necessary to verify training is effective. Most ship owners employ a system to have crew members observed and evaluated by senior officers to monitor the need for further training requirements. That system is necessary, but usually only assesses individual performance. Adequately evaluating performance requires a vessel owner to evaluate watch standers' performance as part of a team. Senior officers are usually part of those teams and cannot reasonably be expected to critically self-evaluate. Thus, effective performance monitoring realistically requires evaluation by independent observers.

The ISM Code requires verification of compliance with safety procedures. The Code's required audits provide one means of satisfying an owner's due diligence duty to ensure that its crew performs competently. Internal auditors can and should be trained to recognize more than just deficiencies complying with documentary procedures. For example, several major ship owners routinely conduct underway navigation proficiency evaluations. The maritime industry should consider a more widespread adoption of this practice using internal auditors and extend it to all areas of vessel operations.

The detailed procedures that a vessel owner uses to ensure that candidates hold the necessary certificates and licenses, have the requisite experience, and possess the skills for serving aboard ship must be set forth as part of the vessel owner's safety management system. The records documenting the accomplishment of those procedures, as well as the accomplishment of training and performance monitoring should be maintained as part of the SMS as well. Nothing can be more frustrating for a vessel owner and his counsel than to have followed all the best practices in selecting a competent crew, but be unable to prove that it did so after a casualty occurs.Nothing can ensure the safe and successful completion of a vessel's voyage better than a competent crew.

As vessels and their operations become more complex, owners need to consider new and innovative ways to provide crew that are well training and experienced. Nothing less is required by the vessel owner's duty of due diligence.

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The U.S. Government &

Pirates & Ransoms

On April 13, 2010, President Obama signed an Executive Order blocking property of certain persons contributing to the conflict in Somalia. Why did this action create such a stir in the maritime community? Because the wording of the Executive Order sowed uncertainty as to whether it criminalizes the payment of ransoms to Somali pirates who have hijacked merchant vessels and kidnapped the crews.

The blocking order is directed at the Somali rebel group al-Shabaab, its leadership, and any other person subsequently determined by the Secretary of the Treasury, in consultation with the Secretary of State, to have engaged in acts that directly or indirectly threaten the peace, security, or stability of Somalia, including acts that threaten the Djibouti Agreement of August 18, 2008, or the political process; or acts that threaten the Transitional Federal Institutions of Somalia, the African Union Mission in Somalia (AMISOM), or other international peacekeeping operations related to Somalia. The blocking order also applies to any other person subsequently determined by the Secretary of the Treasury, in consultation with the Secretary of State: to have obstructed the delivery of humanitarian assistance to Somalia, or access to or distribution of humanitarian assistance to Somalia; to have directly or indirectly supplied, sold, or transferred to Somalia, or to have been the recipient in the territory of Somalia, of arms or any related material, or any technical advice, training, or assistance, including financing and financial assistance, related to military activities; to have materially assisted, sponsored, or provided financial, material, logistical, or technical support for, or goods or services in support of activities proscribed in the Executive Order or any person whose property and interests have been blocked by the Executive Order; or to be owned or controlled by, or to have acted or purported to act for or on behalf of, directly or indirectly, any person whose property and interests in property are blocked pursuant to the Executive Order. The Executive Order includes an Annex prepared by the Office of Foreign Assets Control (OFAC) listing eleven individuals (in addition to al-Shabaab) whose properties and interests in properties has been blocked. OFAC asserts that two of the individuals on the list are "known supporters of piracy". Names may be added to the Annex without prior notice of a listing or determination made pursuant to the Executive Order.

The confusion and uncertainty arises from the wording of the preamble to the Executive Order, which is, by definition, non-substantive. The preamble states, in summary, that President Obama finds that the deterioration of the security situation and the persistence of violence in Somalia, and acts of piracy and armed robbery at sea off the coast of Somalia, and violations of the arms embargo imposed by the United Nations Security Council constitute an unusual and extraordinary threat to the national security and foreign policy of the United States.

Al-Shabaab and its allies have engaged in piracy and armed robbery at sea off the coast of Somalia, attacking humanitarian food shipments. While these acts of piracy and armed robbery at sea by al-Shabaab have not been on the scale of those engaged in by pirates located in northern Somalia, they have directly threatened the security of the Transitional Government of Somalia, the downfall of which is a stated goal of al-Shabaab. The more traditional pirates of northern Somalia, on the other hand, tend to focus their activities on passing foreign merchant vessels and on foreign commercial fishing vessels.

The last thing desired by the pirates in northern Somalia (Puntland and Somaliland) is the downfall of the Transitional Government and its replacement by al-Shabaab. Due to the quantity of their ill-gotten gains, the pirates are living large. Some of them now own large houses and expensive vehicles. They drink alcohol and consume khat. They hire prostitutes.

All of this would end abruptly if al-Shabaab came to power, because that rebel group practices a severe variant of Islam, including stoning and the chopping off of hands.

How does one then align the wording of the Executive Order with the facts on the ground?

Various members of the Obama Administration, including Secretary of State Hilary Clinton, have contended that payment of ransom to the Somali pirates exacerbates the problem by encouraging the pirates to continue their unlawful activities despite the threat of military force and judicial action. Up to that point, they are correct. Some go further, though, and argue that ship owners (and insurers) who pay ransoms for return of their hijacked ships and kidnapped crews are effectively aiding and abetting the pirates and that such payments should be considered violations of the law. No mention is made of the consequences of the alternative: without the payment of ransom, the ship and its crew could rot for an extended period (perhaps indefinitely) anchored off the coast of northern Somalia. Unfortunately, risks to the lives and well-being of merchant mariners increase with time while they are held captive by pirates. This minority-held goal of declaring payment of ransom to pirates to be illegal has found little support, either in the United States or in the international community generally. The vaguely-worded Execu-

Sailors assigned to U.S. Coast Guard Maritime Safety & Security Team 91114 and the visit, board, search and seizure team of the Arleigh Burke-class guided-missile destroyer USS Farragut (DDG 99), signal a Somali skiff with suspected pirates to raise their hands before boarding. Farragut is part of Combined Task Force 151, a multinational task force established to conduct anti-piracy operations.

(U.S. Navy photo by Mass Communication Specialist 1st Class Elizabeth Allen/Released)

It should be not be forgotten that the U.S. Government paid annual tribute to the Barbary pirates to ensure the safety of American sailors until, in 1801, the pirates' demand reached the point that the federal budget could not afford it. Only then did President Jefferson send in the US Navy and the US Marine Corps to free the captives and stop the piratical attacks.

tive Order achieves the next-best thing. It causes uncertainty and generates a hesitancy on the part of ship owners and insurers worldwide to continue paying ransoms to the Somali pirates.

OFAC recently indicated that it is willing to work with owners and insurers of ships that have been hijacked to seek means for payment of ransom to pirates that will not violate the Executive Order. This would involve, at a minimum, no participation in the process by US citizens or persons located in the United States and no use of US currency. In addition, funds could not move through US banks. OFAC has not indicated what will happen when these conditions cannot be met, as when the ship is owned by a US citizen or entity, the ship is documented in the United States (e.g., the Maersk Alabama), or the insurer is a US entity.

Everyone agrees that the piracy situation will not be solved at sea. It is only through re-establishing a functioning government and a viable economy in northern Somalia that the current pirates will be brought to justice and their pool of recruits will dry up. The United Nations is working on this very effort. The problem is that nations, including the United States, have donated only a minuscule portion of the amount required to improve the situation ashore. In the meantime, merchant mariners are daily sailing ships through pirate-infested waters, carrying cargoes vital to the world's economy. If the United States Government and its allies cannot or will not take effective action to stop the pirates, they should at least not imperil the lives of those pursuing a lawful and important profession – the merchant mariner – by impeding a necessary evil, the payment of ransom for the safe return of those mariners. It should be not be forgotten that the United States Government paid annual tribute to the Barbary pirates to ensure the safety of American sailors until, in 1801, the pirates' demand reached the point that the federal budget could not afford it. Only then did President Jefferson send in the US Navy and the US Marine Corps to free the captives and stop the piratical attacks.

Martime Industry Faces Hard Challenges on Efficiency, Emissions & Security with

Software Solutions

Maritime Reporter & Engineering News recently was afforded the opportunity to pick the brains of some of the leading executives in the business of supplying advanced software solutions to make maritime operations more efficient, reliable and cost effective. Those that shared their views were: ***Karen Hughey****, President & COO, ABS Nautical Systems •* ***Dave Coppin****, Head of AVEVA NET Business, AVEVA •* ***Joe Galatas****, President, MarineCFO •* ***Peter Fah****, Managing Director, MESPAS •* ***Albert Carbone****, CEO, ShipDecision •* ***Matthew Hodkinson****,Business Development Director, SpecTec Group •* ***John Veson****, President, Veson Nautical.*

Specifically, what niche of the global maritime industry do you most directly supply?

Hughey, ABS NS We have a dynamic, flexible offering that fits perfectly into the main four maritime sectors: marine, workboat, offshore & energy and government. The NS5 suite is available to all commercial, corporate and private vessels and offshore assets and can be integrated with third-party applications and program interfaces.

Fah, MESPAS MESPAS supplies the technical operations side of ship managers with a variety of different software solutions on the basis of software as a service (SaaS). The software offering is complemented by an array of managed services tailored to both ship owners and ship management companies.

Carbone, Stelvio ShipDecision is aimed at all the players in the maritime industry that have a need to exchange information. We currently have modules for Operators, Charterers, Brokers, Surveyors, Agents, P&I Clubs, and Registries – with more modules in the development pipeline.

Coppin, AVEVA AVEVA supplies software and services to two major groups in the maritime industry - 3D design systems to shipyards and design offices, and information management systems to any party in the maritime industry that requires significant exchange of digital engineering data between globally distributed collaboration partners. Again, this can include shipyards and design offices, but also ship management companies, classification societies and equipment suppliers.

Galatas, MarineCFO Our product specifically serves the workboat market from small tugs and push boats to large OSV's and all variations of work boats in between.

How is your product/service differentiated from the competition?

Galatas, MarineCFO MarineCFO is a true boat to balance sheet solution, meaning that we can handle every transaction that a work boat company might have from recording vessel logs to handling commercial and compliance related data as well as full accounting and financial reporting. While our product can be used in a modular fashion, we also allow companies to cover all of their operating and financial software needs with one application rather than piecing together a variety of different software.

Carbone, Stelvio When we launched our prototype three years ago, we were the first to bring a fully functioning, web-based solution to the maritime industry. We believe that ShipDecision is unique in that it has been designed from a clean sheet of paper to address what we perceive as a huge challenge in the maritime industry: integration of information from the various players. Our niche is in building business systems that provide both for the integration of data across individual companies and between business partners of those companies, thereby improving efficiency across the board. Our systems are built for the sake of business, not for the sake of technology. We know full well that in the world of business, people use computers because they have to, not because they want to. ShipDecision is designed for ease of use; it lets users concentrate on doing their job – not struggling with a computer.

Hughey, ABS NS Our product offering is very unique; R&D is client-driven and based around the integrity of a vessel structure, which also ties into the class product line integration. No other company provides this right now. We also provide staff that are subject experts on our product, and maintain a competitive advantage through our backing from ABS, which allows for streamlining the inspection process and moving toward developing a more standardized, class-approved maintenance program.

Albert Carbone, CEO, ShipDecision

"By improving efficiency, ShipDecision helps organizations do "more with less"; and that is a very powerful message in economic times like these."

John Veson, President, Veson Nautical

You are starting to see you younger generation coming up and taking over some of the companies, which will be a big impetus to push software solutions in the industry. Today we don't have to spend as much time selling the concept of the system; now it just selling the system.

Veson, Veson Nautical Veson Nautical's flagship system, Integrated Maritime Operations System (IMOS), has been developed over the course of 30 years. IMOS6 provides an innovative approach to organizing and managing a shipping company from both a charterer and owner's perspective. The software, with its open and flexible architecture and published APIs for interfacing to corporate accounting, ETRM/CTRM systems or other third party solutions, is designed to reflect the way people work, with a strategic focus on support tools to help clients make better informed decisions. IMOS6 is a highly configurable solution and consists of 10 core modules: chartering, operations, financials, planning, trading, demurrage, bunker management, pooling, data center and data services.

In your estimation, what has been the biggest driving force for the utilization of IT solutions onboard ships?

Carbone, Stelvio In a single word: complexity. Certain elements in shipping have gotten more complex over the years; there is way more information to manage. Computers are supposed to be good at handling information. So, IT solutions were developed and computers ended up onboard.

Fah, MESPAS The maritime industry has always been looking for smart solutions to reduce the workload on board the vessels. In addition, during the past decade, the paperwork has increased dramatically. In order to address all that work correctly and in a timely manner, smart IT system have become indispensable.

Galatas, MarineCFO Investors and owners of work boat companies are demanding better data with which to make decisions regarding their business. As technologists it is our goal to provide innovative solutions and products that manage the litany of data produced by work boat companies and help to distil this data into something useful to management. Management needs more timely and accurate information: most "transactions" in the marine transportation industry occur on the vessel. MarineCFO creates a collaboration platform, where vessels enter or automatically collect information in real-time, then shore based personnel use that information for subsequent processing, such as the completion of invoices, presenting logs to customers, or notifying maintenance personnel of an issue.

Coppin, AVEVA A combination of crew shortages, rising costs, regulatory compliance, and evolving rules and standards have forced the shipping industry to adopt more efficient practices. The resulting need to access more and more information on board has driven the utilization of shipboard IT systems.

Hughey, ABS NS At ABS Nautical Systems, our ability to provide a superior product is that we continuously research and adapt to customer and industry needs. Companies want more efficient operations and smarter information management in areas such as finances, inventory, staff and compliance. IT solutions such as NS5 give the flexibility to streamline these processes.

Hodkinson, SpecTec The two major forces currently driving the growth of SpecTec are operational efficiencies

ShipDecision 3.0

The latest release of ShipDecision technology, version 3.0, takes advantage of the most up-to-date Web development tools and is designed to offer maritime clients an easy-to-navigate software solution that helps people work collaboratively. It was developed using the Adobe Flex framework.

"We fully understand the enormous time pressures and information sharing challenges that confront the maritime sector. As software developers, our job is to design solutions that make it easier for people to handle their work," said Albert Carbone, President of Stelvio Inc. which develops the ShipDecision solution. "When you log into your system in the morning, you want to see your critical information organized in a way that makes sense to you. That's exactly what you get when you use ShipDecision."

The maritime-centric business management system is designed to work like a virtual command center. ShipDecision 3.0 links each business partner involved in the voyage process and ensures they have access to accurate information, when and where it is needed.

The web-based architecture removes the need for in-house servers and complex IT infrastructure. Data is stored on Stelvio-owned server farms housed for security, redundancy and high availability. With specific modules for Brokers, Operators, Charterers, Surveyors, Agents, Insurers and Registries, ShipDecision 3.0 is designed to save time, reduces costs, and create a competitive advantage.

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and regulatory compliance. Shipping budgets (along with energy and defense budgets) are under continuous scrutiny, successful companies are always looking for competitive advantage and operational efficiencies. SpecTec software provides the tools necessary for companies of all sizes to realize efficiencies in lifecycle and asset management. Companies without asset management systems are looking to implement them for the benefits they provide and many companies with a first generation system are looking to SpecTec to provide them with a system based on the latest technology. A specific area where we see much interest is in optimizing maintenance strategies through the use of risk based analysis including Reliability Centered Maintenance (RCM), Risk Analysis, Life Cycle Analysis (LCA) and Fault Tree Analysis. Dashboards, KPI's, and flexible reporting capabilities are important aspects of AMOS that provide an easy to understand means of measuring and reporting on the financial and operational status. From a regulatory perspective, it is well known that operators are dealing with a seemingly never ending stream of new regulations and requirements. The traditional means of complying, documenting and reporting are no longer adequate when faced with this constantly changing environment. SpecTec, through the AMOS Quality and Safety module, provides operators with a comprehensive and practical tool that aids in compliance and cuts through the sea of paperwork. AMOS Quality and Safety incorporates a true document management system allowing for company specific documentation (SMS, directives, etc.) to be embedded in the system as well as relevant industry documentation (SOLAS, MARPOL, ISM Code, etc). Designed to look beyond current regulations, this intuitive and flexible module and document management tool offers a solid foundation for present and future quality related business processes.

How are you investing today in your product(s) (ie. what's under development?)

John Veson, Veson Nautical We invested a year in the development of IMOS6, and worked hard to keep the presentation of the information rational and ready to use. We focused on the usability and customizability; as the functionality (of a software package) grows, the trick is to keep it user friendly.

Coppin, AVEVA Our latest developments include a specialist mechanical equipment interface solution, a dedicated solution for instrumentation, and powerful new status management tools to manage project resources more efficiently and at lower cost.

Hughey, ABS NS This past month, ABS Nautical Systems announced its partnership with SYS-TEC, an industry leader in barcode data collection and radio-frequency identification solutions, to develop a hand-held scanner technology for the industry. While a crew member will make errors one in every seven characters by writing down or typing in data, the same risk is less than one in seven million with the improved scanning technology. A best practice approach to inventory management, it will be available as part of the NS5 Purchasing & Inventory module and will provide a more efficient and reliable method for vessel owners and operators to preserve their offshore assets.

We will also introduce NS v5.5 to the industry this year. Version 5.5 is an upgrade to the NS5 software suite that will incorporate more than 130 new functionalities and modifications based on customer feedback and insights. For customers with NS v5.4, the upgrade to v5.5 can be easily implemented across an entire fleet.

Carbone, Stelvio There are 3 parts to my answer:

• Regarding technology: Software tools for building web applications are constantly evolving and new standards are being introduced on a seemingly regular basis. New "internet-enabled" hardware devices are announced on a daily basis. Our job is to ensure that ShipDecision is enhanced to take advantage of, and stay compatible with, the "evolving internet" and the devices used to connect to it.

• Regarding ShipDecision: we have new modules under development that take the next step in using the information that ShipDecision integrates.

• Regarding development: our development team is growing and will continue to be based solely in Montreal. Our developers are full-time employees; we do not outsource.

Hodkinson, SpecTec SpecTec places great emphasis on continually upgrading and enhancing the product and

Karen Hughey, ABS NS

"This past month, ABS Nautical Systems announced its partnership with SYS-TEC, an industry leader in barcode data collection and radio-frequency identification solutions, to develop a hand-held scanner technology for the industry. While a crew member will make errors one in every seven characters by writing down or typing in data, the same risk is less than one in seven million with the improved scanning technology.

Peter Fah, Managing Director, Mespas

At the heart of the MESPAS system lies a unique database architecture and central server infrastructure. The system is based on the concept of cloud computing.

services offered. Currently SpecTec is maintaining both the AMOS Business Suite which has been evolving for a number of years, and AMOS2 which is our latest offering. Both versions of AMOS have enhancements under development. The development focus is shifting to AMOS 2 where we are building the interdependencies between each of the onboard and shore based management modules to ensure that both management teams operate as one, in real time, not only auditable, but streamlined and functional, in short bringing the various management systems and processes alive.

Galatas, MarineCFO We are constantly making our software more intuitive and easier to use. We are spending considerable development in the area of web based products and cloud computing as we believe that this is the future of marine software. Our Vessel Live! platform moves data between the vessel and shore using our proprietary replication technology, and more importantly does so with transactional consistency. Vessel communications can be costly, time sensitive and confidential in nature. We are investing heavily in this technology, which is communication provider agnostic and highly configurable for each customer.

What do you consider to be the biggest challenge to advancing IT solutions on ships and boats?

Hughey, ABS NS Traditionally many crews on board ships, as well as in the office have relied on labor intensive, low-tech solutions to maintain their assets. Applying an IT solution requires a cultural shift; otherwise, making changes that require both time to educate staff and to implement software can be seen as overwhelming. An organization needs to make sure they have the right people, as well as the right infrastructure in place, to begin this form of asset management. We've found that crews that do make this shift are ultimately satisfied with the efficiency an integrated software solution provides.

Fah, MESPAS Software on board of ships must be easy to use. User-friendliness is a must in order for software to become a well accepted and valued working tool that supports everyday's operation on board. The IT solution on board is also required to withstand different operating systems, viruses and other IT environment factors. Maintaining the software's system architecture to cope with such factors is an ongoing concern and forms an integral part of the continuous software development process. Last but not least, software solution providers are expected to supply a complete package of different solutions for an acceptable price in the context of today's challenging ship operations.

Carbone, Stelvio In a single word: simplicity. The IT environment onboard has become very complex. And, for the most part, it is unfair to expect mariners to be part-time IT experts. They are already overly busy with their ship-based jobs. So, if you introduce a new software system that isn't simple to use then you will face huge barriers and obstacles to acceptance of that system.

Coppin, AVEVA AVEVA sees the biggest challenge to advancing IT solutions onboard as achieving universal acceptance of the ship product information model, produced at the shipyard, as the basis for total ship lifecycle manage-

IMOS6 Bunker Management

Earlier this year at the Connecticut Maritime Association 2010 Shipping exhibition, Veson Nautical released its IMOS6 Bunker Management. Part of Veson's flagship Integrated Maritime Operations System (IMOS), the module is tailored to the needs of specialists, charterers, and bunker managers, adding fleet-level visibility to existing vessel-level capabilities to optimize fleet-level purchase strategies and financial results and provide fleet-level bunker decision and process support. "After reviewing customer input and assessing current requirements, we expanded the existing features and tools to encompass fleet-level capabilities," said John Veson, president of Veson Nautical. "Operational efficiencies for the entire fleet, not just per vessel means that specialists and bunker managers have access to crucial bunkering data enabling them to make better informed decisions to negotiate better pricing. This can greatly impact the bottom line."

IMOS6 Bunker Management makes purchasing processes automated, which provides fleet-level purchasing data to make better decisions that affect financial performance. For instance, if a bunker manager can see quickly that three of his vessels are going into a particular port in the same time period, he can try to negotiate reduced pricing in a "package deal."

The module also enhances the vendor selection process, purchasing and stem operations; it provides evaluations and vessel history capture. Forecasting is greatly enhanced because IMOS6 Bunker Management delivers quick, up-to-the-minute analyses, including the performance of vendors and a particular vessel's bunker history of purchases and consumption.

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ment. Today shipyards and design offices have many intellectual property issues with the handover of their 3D models and associated data; the industry needs to find a way to ease these concerns and make full use of what we at AVEVA refer to as the "digital ship."

Galatas, MarineCFO The biggest challenge is the commitment to technology by the investors in and owners of marine companies. Too many marine companies still view software and technology as an expense rather than an investment. When we look at technology spend as a percentage of budget in marine companies we find that it is not equal to what is spent in other industries. Technology available for marine companies will take a giant leap ahead when the marine industry, as a group, begins to spend more dollars on technology, which will in turn drive new development and innovation. One other area of concern is that vessel communications remains expensive and often unreliable. As communication technology improves on those fronts, more elaborate solutions can be implemented.

How has the current world economic situation affected your business and that of your clients?

Veson, Veson Nautical It has been one of the worst markets in a long time. How fast things dropped was a bit of a surprise, even for those of us that are used to the cyclical nature of the business. We were fortunate, however, as a lot of our businesses (customers) are still going strong, and we had a strong pipeline of new orders

Fah, MESPAS Compared to the previous year, the order intake has slowed down. Nonetheless, MESPAS achieved an overall growth in revenue of 60% during 2009, and this year looks very promising indeed. At the present time, some of MESPAS' existing clients are suffering badly from the economic environment.

Carbone, Stelvio The impact of the current world economic situation on shipping was discussed in great detail at the recent CMA conference, and it is clear that the industry has felt the economic crunch. Fortunately, we have been somewhat insulated from its effects. By improving efficiency, ShipDecision helps organizations do "more with less"; and that is a very powerful message in economic times like these.

Hughey, ABS NS ABS Nautical Systems has been fortunate that our client base is well balanced between the marine, government, offshore & energy and workboat sectors, as not all sectors are equally affected by the recession. In the first quarter of 2010, ABS Nautical Systems signed 28 new orders with companies including MISC, BG Group, SMIT Rebras and Seaarland Shipmanagement (Hamburg) GmbH & CO., KG.

Coppin, AVEVA Generally speaking, we see that ordinary commercial shipbuilding now commands lower prices and the orders taken are at lower margins than previously. In this kind of environment, the ability to manage information efficiently, in order to drive down costs and wastage, is paramount. The need for additional oil and gas supply, however, means that Offshore, with its infrastructure of rigs, FPSO, supply and support ships and so on, has been less affected.

Galatas, MarineCFO MarineCFO managed to grow through this period and we are proud of this accomplishment. Not surprisingly, the growth came from our web based business as companies try to find low cost ways of achieving results. Due to MarineCFO Live is web based these companies are able to get state of the art technology with no capital investment in IT infrastructure.

Hodkinson, SpecTec SpecTec has been affected by the global economic downturn but managed to stay profitable during a difficult 2009. So far in 2010 we are seeing a high level of interest in our products and services based on the pent-up demand from companies that put projects on hold in 2009 and also from the companies that are looking to upgrade or replace their current systems. Our client base has also been affected by the global economic downturn but the majority has emerged in good shape, due in part to having SpecTec products in place to help them closely manage their operations.

Joe Galatas, President, MarineCFO

MarineCFO is a true boat to balance sheet solution, meaning that we can handle every transaction that a work boat company might have from recording vessel logs to handling commercial and compliance related data as well as full accounting and financial reporting.

Dave Coppin, Head of AVEVA NET

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Passing Trend or Here to Stay?

Slow Steaming

by Greg Knowler, Hong Kong

Photo courtesy of OOCL

Container shipping's laid up capacity could all be back in service as early as mid-2011 as carriers intensify the practice of slow steaming vessels on long-haul trades. Alphaliner executive consultant Tan Hua Joo said slow steaming would address the capacity overhang that is proving such a burden for cash strapped carriers. "On a 10 percent a year growth forecast, by the mid-2011 peak season, we expect all the surplus capacity to be absorbed back into the market," he predicted. In September last year, as the peak season vanished, there was a surge in the number of shipping lines slowing down their vessels. "Since then we have seen close to 500,000 TEUs of vessel capacity being absorbed by the move towards slow steaming," he said. "On the Asia-Europe trade most lines are slowing down. From September until now, we have seen a large number of routes on the trade with ships sailing at speeds of 18 knots on average, instead of at the previous 24 knots."

He said this has helped to take a large chunk of surplus capacity out of the market. From the Asia-Europe trade the trend has moved to the transpacific, more so on the U.S. East Coast services, the majority of which are employing slow steaming.

With container shipping struggling to recover from its worst crisis, finding a way back to profitability is the top priority. High fuel prices mean high operating costs, and in the absence of large freight rate hikes, cutting the bunker bill makes a lot of financial sense.

According to Lloyd's Register, slowing a vessel to an engine-friendly 19.8 knots will realize 40 percent savings in fuel. That means around $1m in fuel savings per voyage, numbers that are hard for shipping line executives to ignore.

Maersk CEO Eivind Kolding said bunker fuel savings more than paid for the addition of an extra ship to a string required to maintain port schedules and services."As a rule of thumb, if we reduce speed by 20 percent, we can use half our bunker consumption," he said.

Goh Teik Poh, president of APL South Asia, said the economics of slow steaming were compelling and extended well beyond fuel savings. "Costs can be taken out across the system, from terminal handling, feeder services and cargo re-handling, in addition to fuel expenses," he said. With ships being operated more slowly, it is possible to enhance schedules. For instance, Goh said, if additional ships were placed in a service, they could call at additional ports and reduce feeder costs.

According to Lloyd's Register,

slowing a vessel to an engine-friendly 19.8 knots will realize

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"How do we implement new green technologies, clean fuel standards and emissions reduction initiatives if we are not making a profit?"

• CC Tung, chairman and CEO of OOCL parent OOIL Group.

Maersk Laemchabang

"As a rule of thumb, if we reduce speed by 20 percent, we can use half our bunker consumption."

• Maersk CEO Eivind Kolding

"Increased schedule flexibility will also allow ships to berth during different windows. Docking on weekdays or during daylight hours could, for example, cut overtime payments."

Orient Overseas Container Line's CL Ting, managing director of corporate planning, said slow steaming was a "win-win strategy" for carriers and shippers. "It makes economic and environmental sense. Burning less fuel saves money and it also reduces greenhouse gas emissions," Ting said.

The executives all believe the future of container shipping will involve sailing vessels at slower speeds.

"Slow steaming is here to stay," said Kolding.

Goh agreed, and said it was unlikely the world would ever return to the days of cheap fuel.

"Given current economics, you have to wonder even if freight rates go up $500 per box, will lines be prepared to spend hundreds of millions of additional dollars on fuel?"

Environmental concerns are also playing a greater role in regulatory measures, with the International Maritime Organization and governments worldwide tightening requirements for cleaner fuels and more fuel-efficient vessels.

This would have a significant impact on shipping lines, Ting believed. "Further down the road, carbon taxes and cap-and-trade climate policies are under consideration and may have lasting effects on liner shipping operations and costs for both carriers and shippers.

"In the meantime, slow steaming can be implemented immediately," he said.

But as with any technical issue there are some serious pros and cons. On the positive side, sailing slower also cuts down on harmful fuel emissions, and with a carbon trading system an inevitability, having engines that can operate at slower speeds and use less fuel will be critical.

The engine issue also falls on the "cons" side of the argument. Possibly the greatest issue facing slow steaming is the uncertainty of how sustainable it is operating engines slower than their designed speed.

Much research still needs to be done, but according to engine manufacturer Wärtsilä, possible consequences of running unmodified engines at low speeds include lower airflows, poor combustion and cold corrosion. This causes excessive component temperatures and an increased risk of engine fouling. There are harmful vibrations to consider that could cause failures of crankshafts and shaft connections.

Of course, no discussion on slow steaming would be complete without the views of the people who use container vessels to ship their cargo – the shippers. Electrolux vice-president of global freight Bjorn Vang Jensen said while he accepted the reasoning behind slow steaming, he was not prepared to pay more for a longer transit time.

"Paying for a service is one thing, but I don't see us paying more for a service that adds an extra 10 days or more to my transit time," he said. "We would expect lower rates for such a service."

Jean-Louis Cambon, head of tire maker Michelin's ocean management committee – and recently appointed to the European Shippers' Council's influential Maritime Transport Council – said super slow steaming on the Asia-Europe trade would see nine, and even up to 12 ships in the future, deployed per string.

"In that scenario, the total round-trip time would move from the current 63 days to 84 days and, seen from a shipper's perspective, this is a big change," he wrote in the Shippers' Voice, an independent networking website for shippers. "It follows that stock levels will suffer quite a lot, and looking at it from a total cost perspective, this will cost a lot of money."

Service was always a unique selling point in the container line business, and Alphaliner's Tan said in the past, most carriers competed on the basis of faster transit times. Slowing down vessels was a complete reversal of what liners were offering to their shippers.

"But still, a lot of shippers will forego transit time if it means a more reliable service."

While the immediate financial benefits are attractive, the technical side of the argument is not so clear cut, ensuring the debate over the merits of slow steaming will be with the container shipping sector for a long time.

However, with such calamitous financial losses last year, the industry's most pressing order of business is to find a sustainable pricing model. Slow steaming may offer an opportunity to relieve operating cost pressures, but it is higher freight rates that will ultimately lead carriers back into the black.

Does "Slow & Steady" Win the (Emissions) Race?

The World Shipping Council estimates that maritime shipping produces 2.7 percent of global CO2 emissions. But attempts to apply global curbs on emissions are complicated by the knowledge that shipping is the most carbon efficient mode of transporting goods. "In fact, total global CO2 emissions would be reduced if more goods were transported by maritime commerce instead of the other less energy efficient transportation modes," said Christopher Koch, president and CEO of the World Shipping Council. This is a message the maritime industry has been working hard to broadcast to a wider audience. The public perception of the shipping industry is often a negative one, associated with oil spills, rust buckets and belching smoke. It is a stereotype that belies the work being done by the industry to cut emissions and reduce carbon footprints.

Governments at the IMO are attempting to develop a new regulatory regime to address carbon emissions (CO2) from ships. This will capitalize on 2008's IMO agreement on new regulations to reduce ships' nitrous oxides (NOx), sulfur oxides (Sox), and particulate matter (PM) emissions. The CO2 emissions are now the focus of debate at the IMO, at the United Nations Framework Convention on Climate Change (UNFCCC), and within the capitals of numerous governments. A final agreement is expected in 2011. In the shipyards, more efficient vessels are being produced. Lloyd's Register found in a study last year that the fuel efficiency of 4,500 TEU container ships had improved by 35 percent between 1985 and 2008.

A 1,500 TEU ship built in 1976 consumed 178 grams of fuel per TEU mile at 25 knots. However, a 12,000 TEU vessel built in 2007 consumes just 44 grams per TEU mile at the same speed. With ships sailing slower, greater fuel reductions are being made. For the shipping industry, the environmental pressure to "green up its act" will only increase.

"Clean fuel demands will escalate," said CC Tung, chairman and CEO of OOCL parent OOIL Group. "Shippers are already asking for ways to lower their carbon footprints and are choosing 'green' carriers. It is the industry's responsibility to tackle emissions and as responsible corporate citizens, we are both willing and eager to do so."

But as will most green initiatives, there is a cost involved. The question of "who pays?" has yet to be resolved, and container carriers last year posted collective losses of US$11 billion. "How do we implement new green technologies, clean fuel standards and emissions reduction initiatives if we are not making a profit?" Tung asked. While slow steaming is being employed by container lines predominantly to save on fuel costs, a Baltic and International Maritime Council (BIMCO) report said easing off on the throttle greatly reduced the amount of harmful emissions put into the atmosphere, particularly greenhouse gases.

"So it might be suggested that a more sustainable shipping industry will be one where ships travel slower," BIMCO said. **• By Greg Knowler**

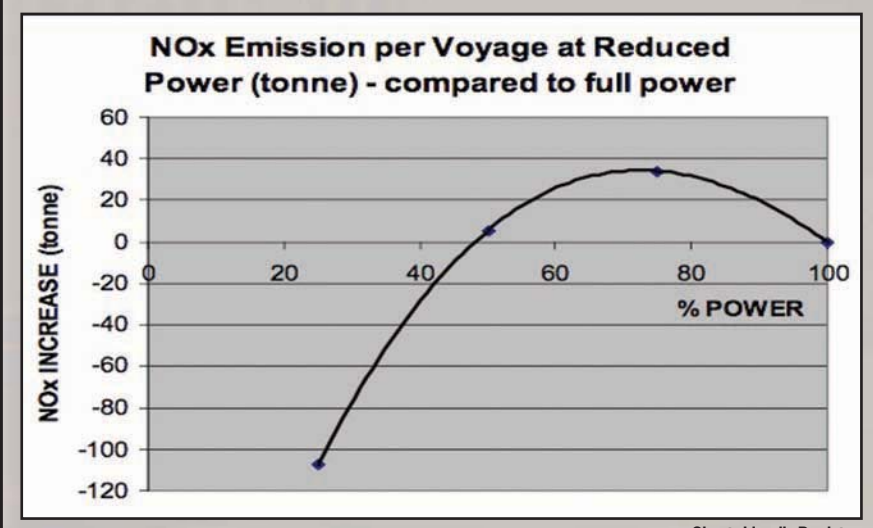


Chart: Lloyd's Register

"Increased schedule flexibility will also allow ships to berth during different windows. Docking on weekdays or during daylight hours could, for example, cut overtime payments." said Goh Teik Poh, president of APL South Asia

"It makes economic and environmental sense," said Orient Overseas Container Line's CL Ting, managing director of corporate planning. "Burning less fuel saves money and it also reduces greenhouse gas emissions."

Wärtsilä, ABB Turbo Systems Seek to Cut Diesel Engine Emissions

Fuel economy and emission reductions are leading agenda items for everyone who operates on the water, and with this in mind two leading propulsion manufacturers – Wärtsilä and ABB Turbo Systems – last month announced that the companies are cooperating in a joint development program for new application of two-stage turbocharging on large diesel engines.

The application of two-stage turbocharging technology on Wärtsilä diesel engines has been developed through close cooperation between Wärtsilä and ABB Turbo Systems, with Wärtsilä is focusing on developing advanced engine technology, which with the turbocharger, is able to reach the highest possible performance and become a cost-effective commercial solution for its customers. ABB Turbo Systems is delivering the turbocharging technology with defined performance in terms of airflow, pressure ratios and efficiency.

In the new engine design, two turbochargers are arranged in series to generate increased air pressure, airflow and a superior turbocharging effect. This results in an efficiency rating of up to 76 percent.

The increased air pressure, combined with the advanced engine technology, improves the engine output and power density by up to 10 percent. At the same time, both fuel consumption and CO2 emissions are reduced.

Further emissions reduction can be achieved with additional engine systems or by the use of exhaust gas after-treatment. A precise combination of fuel consumption levels and reductions in CO2 and NOx emissions can be selected through detailed systems configuration. Intelligent engine control allows optimum operation of the advanced engine design over the whole load range, and a significant reduction in NOx emissions can be reached.

At high altitudes, 2-stage turbocharging technology guarantees the engine's operational performance by compensating for the reduced air density.

The 2-stage turbocharging technology being tested on a 20-cylinder Wärtsilä 32 engine in the laboratory in Finland.

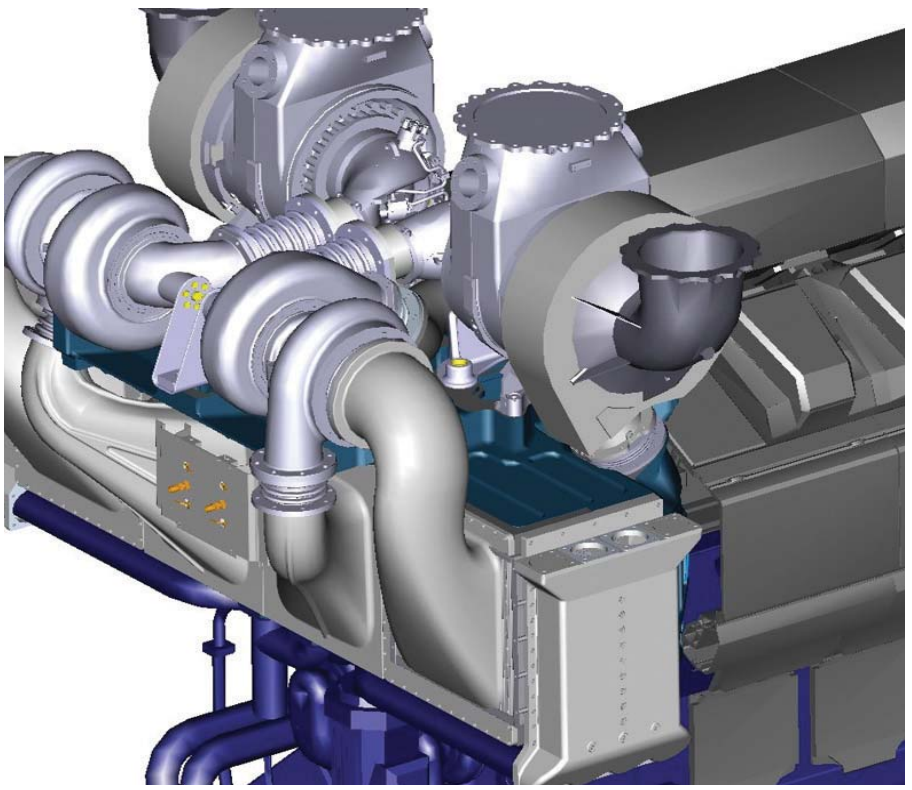


Illustration of the 2-stage turbocharger on a Wärtsilä 32 engine.

Is Air the Answer?

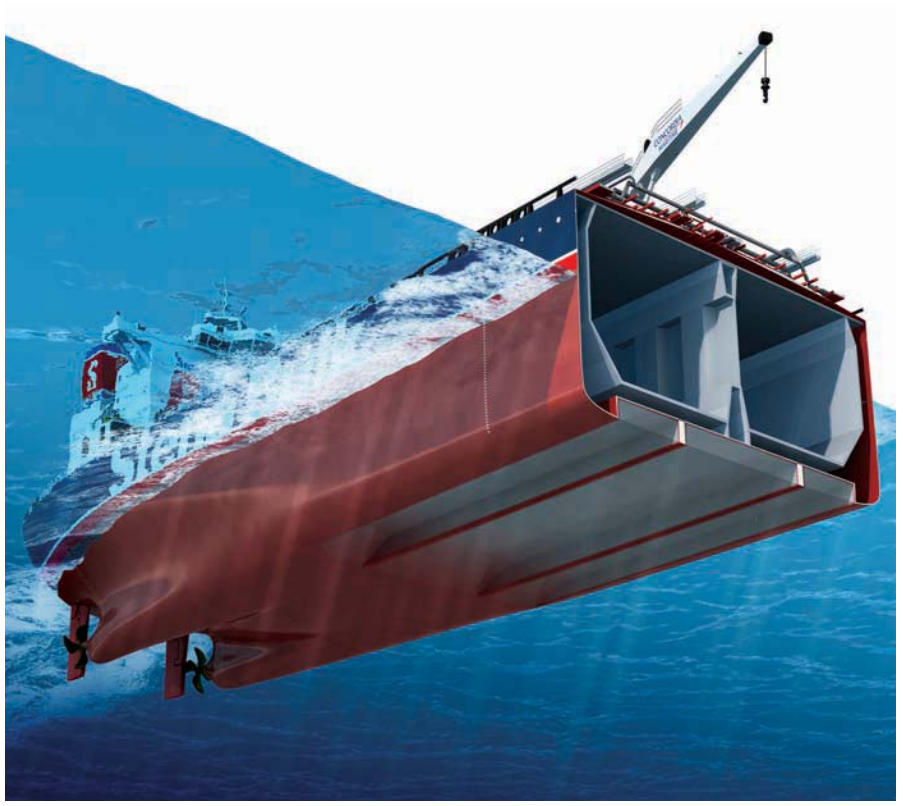
Unique Vessel Concepts to Battle Emission Issues

Though often tagged with the "conservative" label in terms the pace of technological innovation, many sectors of the marine industry are aggressive in developing and delivering innovative solutions to complex problems. The industry today faces the complex problem of reducing emission, fuel consumption and overall its 'carbon footprint,' while maintaining a solid bottom line.

There are several vessel designs which incorporate an air-cushioned hull to reduce resistance when riding through the water, designed to improve fuel efficiency and reduce emissions.

DK Group recently announced the launch of the Air Cavity System (ACS) Retrofit for existing vessels, what it touts as a breakthrough technology, as the development of the original ACS that was specifically designed for new vessels. The company claims that the ACS can be retrofitted at standard drydock or in most ship and repair yards in 14 days. ACS Retrofit, which according to DK Group's seatrials have shown can reduce fuel consumption by up to 15% depending on vessel type, has an average fuel cost payback of under two years at current bunker fuel prices, with some ship classes achieving substantially better payback periods.

"Few, if any, current efficiency technologies provide such a simple retrofit procedure with such significant payback timelines," said Ken Bloch Soerensen, the recently appointed CEO of the DK Group. NYK and Mitsubishi Heavy Industries recently reported that they are to begin experiments on an air-lubrication system to reduce CO2 emissions during marine transport. Jointly developed by the two companies, the system is designed to reduce the frictional resistance between a vessel's bottom and the seawater by means of bubbles generated by supplying air to the vessel's bottom. The first permanent installation of the system using an air-blower is expected to reduce CO2 emissions by approximately 10%. The experiments will be conducted using module carriers -- special heavy load carriers with RoRo rampway to transport thousand-ton prefabricated structures of plant facilities to be installed on oil/gas development sites, or industrial locations – operated by an NYK Group company, NYK-Hinode Line, Ltd. Construction of the vessels will be completed in March and November 2010.



The Stena AirMAX: A 1:12 scale model is undergoing evaluation.

DK Group's Air Cavity System.

Last month the 15-m long ship prototype Stena Airmax was named in Gothenburg, Sweden. The prototype is part of a project in which an "air cushion" is being tested to investigate to what extent it reduces the friction between the hull and the water, thus also reducing fuel consumption and emissions of large tankers in the future. Following positive test results, Stena Teknik has developed a large-scale model weighing 25 tons, providing a platform for the same tests to be carried out in a more real-life circumstance.

It was five years ago that Stena Teknik initiated a development project in order to find a method of reducing a ship's water resistance, thus reducing energy utilization and fuel consumption. "The results of the tests carried out are very promising. Depending on the type of ship and speed, we expect energy savings of 20-30 percent. This will now be verified in tests with the newly built prototype Stena Airmax", says Ulf G. Ryder, President and CEO of Stena Bulk.

Stena Teknik has co-operated with Chalmers University of Technology and SSPA in Gothenburg in the development project and the construction of the P-MAXair model. The Stena Airmax will be tested in the Gullmars Fjord on the Swedish West Coast, during spring 2010 when extensive - test programs will be run. The model will be powered by electric motors during these simulations.

Testing ship models in test basins has a long history and the technique of scaling up the results from a model to an actual ship is well known. However, Stena's project is different in that air is also involved. There is no previous experience of the effect of the air when a model is scaled up to full scale. Building a ship based on normal model tests of a 4 m long model would have been very risky. Accordingly, Stena decided to build a 1:12 model, i.e. a 15 m long model, to verify that the results achieved also applied on a larger scale.

Technical data for the Demonstrator model Stena AirMAX on a 1:12 scale

Length	15 m
Breadth	3.3 m
Draft "fully loaded"	0.9 m
Weight fully loaded	35 tons
Speed	5 knots
Propulsion	2 x 10 kW
Full scale:	
Length	182 m
Breadth	40 m
Draft "fully loaded	11.3 m
Weight "fully loaded	65,000 tons
Speed	14 knots
Propulsion	2 x 8,000 kW

Stern Tube, Gear Lubricants Receive Patent

Kobelco Eagle Marine Engineering Ltd. (KEMEL) advised that its polyglycol based stern tube and CPP/thruster gear lubricants ST-77 and TH-100 have recently received a US Patent. Introduced to the marine market in 2005, there are now about 70 vessels using this environmentally compatible lubricant, which the manufacturer touts as a big step forward to environmental compliance with the EPA's new NEPDS and VGP program.

www.Kobelco-Eagle.com

BALPURE Receives Basic Approval

The BALPURE ballast water treatment system from Severn Trent De Nora received basic approval from the International Maritime Organization's Marine Environment Protection Committee (MEPC) 60th session, March 22-26, 2010. As a result, Severn Trent De Nora has submitted its dossier for final approval of the system at an upcoming MEPC session. Severn Trent De Nora is also scheduled to conduct shipboard testing of the BALPURE system May through November 2010 on the California Maritime Academy training ship, the T.S. Golden Bear.

WSS Assists Sanko with "Enviro" Conversion

Wilhelmsen Ships Service (WSS) office in Japan has completed an R-22 retrofit project on a vessel owned by a Japanese company, Sanko Line. The vessel – Sanko Spark – is changing from R-22 to the non ozone-depleting gas, R-417A, in compliance with EU regulations. WSS engineers have been busy around the world converting R-22 refrigeration systems. Now they have performed this first refrigeration retrofit for a Japanese company, a conversion which took place at Kimitsu on March 16, 2010.

Royal Australian Navy Choses PureBallast

Alfa Laval's PureBallast, a chemical-free system for ballast water treatment which has garnered 30 systems sold on commercial ships, received its inaugural order for a naval application. The Royal Australian Navy ordered two PureBallast systems to be fitted aboard the Australian LHD (Landing Helicopter Dock) vessels to be built by Spanish shipyard Navantia Ferrol. The first system for the Royal Australian Navy was delivered in mid-December 2009; the second in April 2010. Each will have a treatment system flow of 250 cu. m./hr.

Since naval vessels are exempted from IMO's pending ballast water treatment requirements, the decision by the Royal Australian Navy to install ballast water treatment systems is a voluntary one. It was made in part to protect Australia's sensitive coastal environment, which has already been threatened by the invasion of non-native organisms transported via ballast water. Darwin Harbour, for example, was invaded by the South American black-striped mussel in 1999, which necessitated a quarantine and cleanup effort costing over $2m.

Investing in the Future

Maritime Schools

As the sheer number and diversity of rules and regulations governing the maritime market has flourished over the past two decades, so too has the educational and training offerings within the industry. While even the highest quality vessel owner and operator cast a wary eye on the never-ending onslaught of new rules coming from regional, national and international sources, places for mariner education and training view the same regulations as a business opportunity. Last month *Maritime Reporter* spoke with course providers to discover how they were investing to meet future mariner training and education needs.

The Global Maritime and Transportation School (GMATS) is currently divided into four divisions: Nautical Science and Military Training; Marine Engineering; Transportation Logistics and Management (Security); and Research and Special Projects, according to Capt. Joseph A. Martucci, USN (Ret.), Associate Director, GMATS. Together, these divisions offer more than 140 professional education and training programs. In addition, GMATS specializes in developing customized education and training programs that meet the specific needs of any transportation organization, with nearly 4000 students annually attending its programs.

GMATS, too, is compelled to invest in its programs and facilities in order to stay current with the needs of the industry. "We consistently invest in programs and simulation that reflect the current maritime operating environment. Our philosophy is to always be current by using SME's that are doing the job and are not "off the shelf" instruction," Martucci said. "We ensure that our training is customized to the group and that our tools are reflective of what is going on either at their facility, port, or ship. We purchase whatever is necessary to ensure we are one step ahead of the ever-changing times and that we are preparing the students to go back with a great knowledge of current equipments and information on regulations."

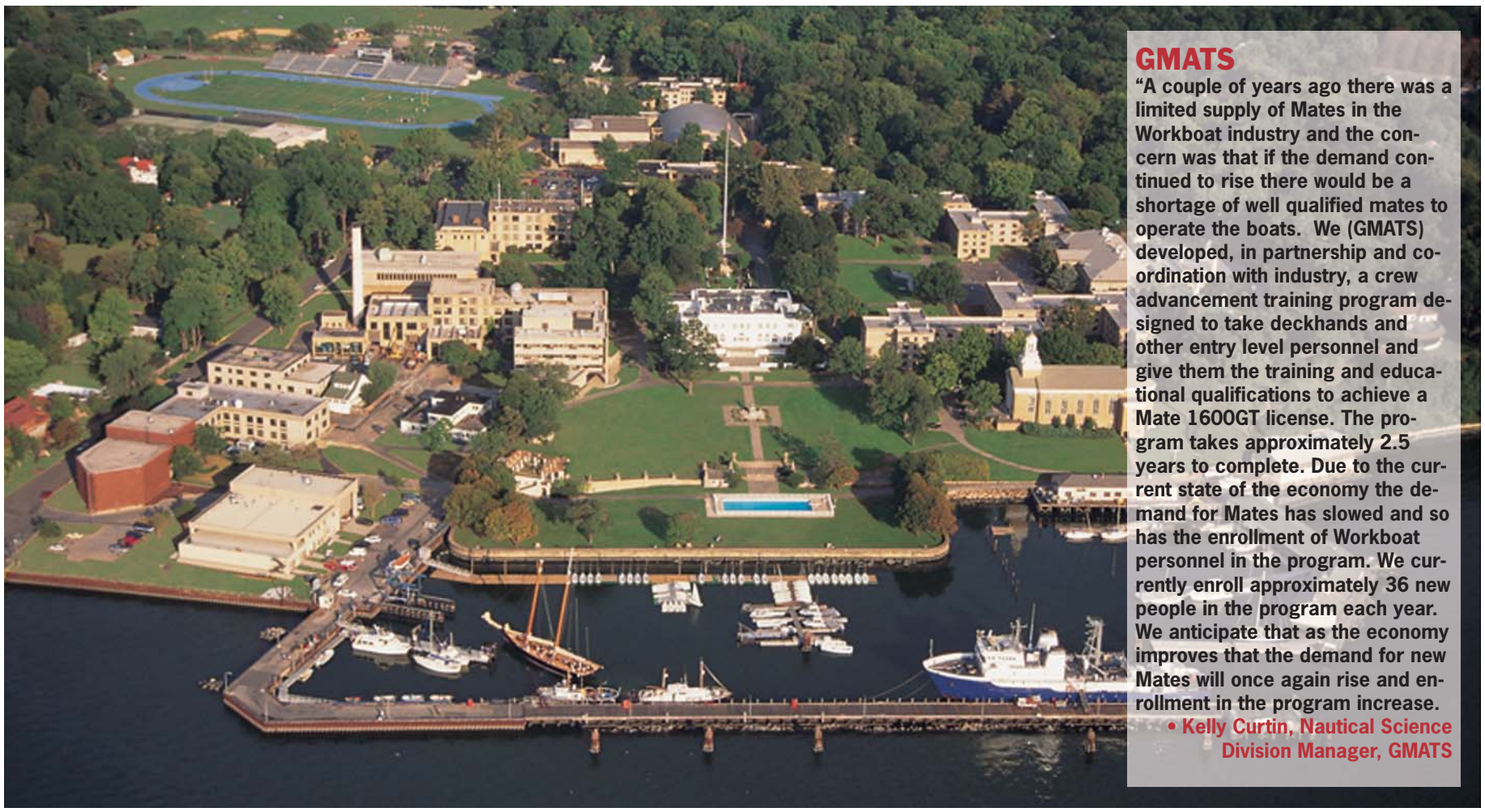
According to Kelly Curtin, Nautical Science Division Manager, GMATS "recently installed a new charting room for chart plotting. We continue to upgrade our simulation capabilities to meet industry needs.

We have purchased license training software programs to assist our students in their preparation for their license exams. We recently renovated our berthing facility and purchased new furniture for all the rooms."

GMATS' CAP program is a unique offering, as Martucci explains: "The Crew Advancement Program at GMATS enables entry level mariners to take the courses required to sit for their 500 or 1600 GT Near-coastal license exam. The students complete the courses around their work schedule and have underway sea projects which must be completed on board their vessels. Specifically designed for the Tug Boat Industry this program will ensure qualified mariners are ready and able."

GMATS received approvals from a Quality Standards Systems Organization for the Vessel Security Officer (VSO), Company Security Officer (CSO) and Facility Security Officer (FSO) Courses. To expedite training, GMATS offers a three-day combined VSO/CSO/FSO Course. In the case of the combined course, the mariner will receive all three security officer certifications.

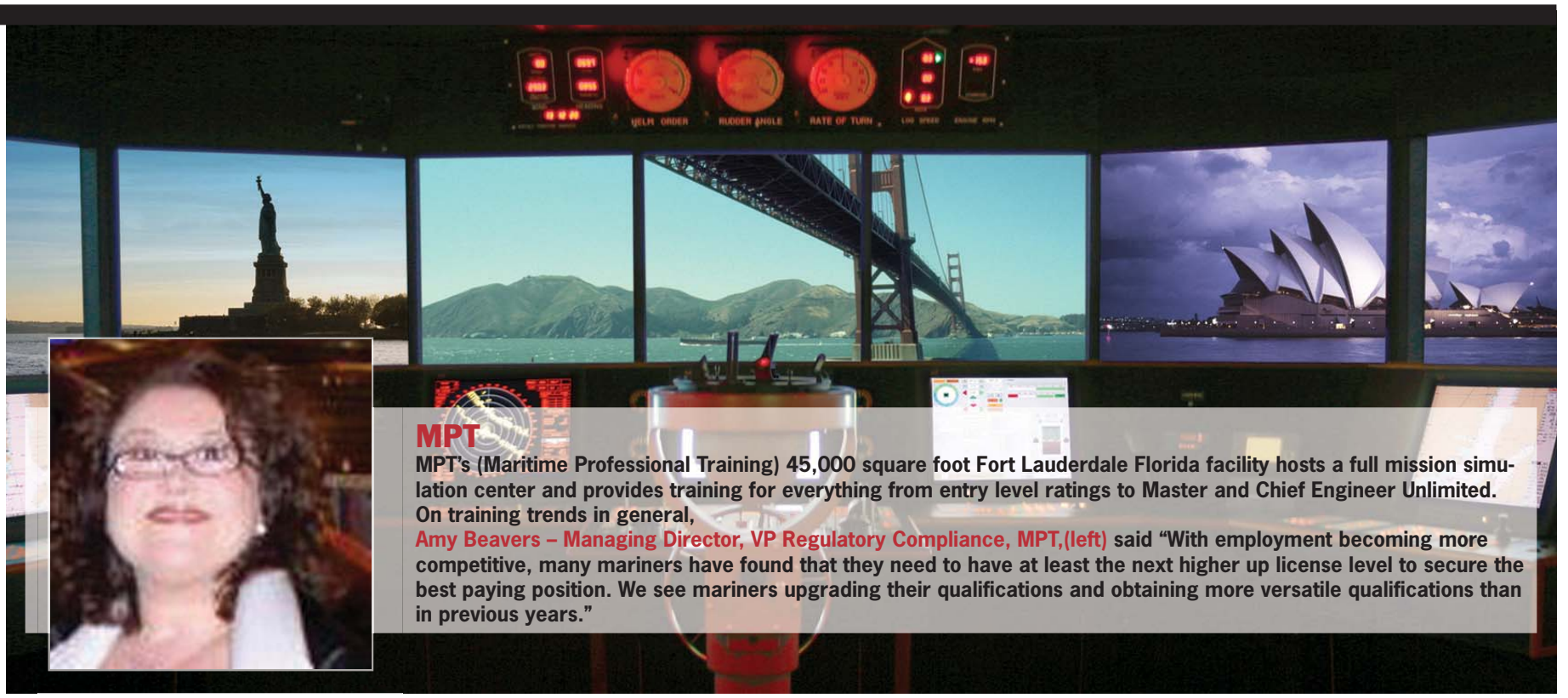
GMATS IT Training Program offers a



GMATS

"A couple of years ago there was a limited supply of Mates in the Workboat industry and the concern was that if the demand continued to rise there would be a shortage of well qualified mates to operate the boats. We (GMATS) developed, in partnership and coordination with industry, a crew advancement training program designed to take deckhands and other entry level personnel and give them the training and educational qualifications to achieve a Mate 1600GT license. The program takes approximately 2.5 years to complete. Due to the current state of the economy the demand for Mates has slowed and so has the enrollment of Workboat personnel in the program. We currently enroll approximately 36 new people in the program each year. We anticipate that as the economy improves that the demand for new Mates will once again rise and enrollment in the program increase.

• Kelly Curtin, Nautical Science Division Manager, GMATS



MPT

MPT's (Maritime Professional Training) 45,000 square foot Fort Lauderdale Florida facility hosts a full mission simulation center and provides training for everything from entry level ratings to Master and Chief Engineer Unlimited. On training trends in general,
Amy Beavers – Managing Director, VP Regulatory Compliance, MPT,(left) said "With employment becoming more competitive, many mariners have found that they need to have at least the next higher up license level to secure the best paying position. We see mariners upgrading their qualifications and obtaining more versatile qualifications than in previous years."

wide variety of courses designed to keep its students ahead of a rapidly changing industry. GMATS classes cover the areas of computer hardware, computer networking, wireless networking, network security, fiber optics installation, web design, AutoCAD, PLCs and electronics repair. There are courses available for students interested in beginning a career in IT as well as advanced areas of study such as network security. GMATS has been designated as a Pearson Vue testing site enabling the ability to offer industry wide certifications valuable to the IT professional.

In response to the trend in the engineering design of new vessel, GMATS has responded by offering a course to address the dangers and concerns of engineers working with High voltage electric drive systems. These systems are being found more commonly on new vessels with diesel electric drives and also in the offshore industry on oil rigs and support equipment.

MPT, Maritime Professional Training, is a private maritime vocational technical school offering training for all levels of licensing and certification. MPT's training courses are approved by the USCG and many are recognized by the MCA, the Marshall Islands and numerous other Flag States. MPT's 45,000 square foot Fort Lauderdale Florida facility hosts a full mission simulation center and provides training for everything from entry level ratings to Master and Chief Engineer Unlimited.

According to Amy Beavers – Managing Director, VP Regulatory Compliance, Maritime Professional Training (MPT), Ft. Lauderdale-based MPT is best known for its AB to Mate Program and license advancement courses for deck and engineering officers. MPT is currently installing a state-of-the-art technology system which will streamline every process from mariner registration to records to downloadable textbooks, and podcasts. "We are also adding new courses every month to better meet the needs of our clients."

MPT is progressive in that it is able to quickly switch gears to meet emerging industry needs. For example, Beavers said that "With employment becoming more competitive, many mariners have found that they need to have at least the next higher up license level to secure the best paying position. We see mariners upgrading their qualifications and obtaining more versatile qualifications than in previous years. Newly proposed USCG licensing changes have also begun to have an impact on those mariners who currently qualify for a raise in grade who had not taken the time to complete the upgrades previously and who do not want to wait until the final ruling which may cause them to have additional requirements to meet the same license."

In addition, MPT offers a host of engineering training. "We offer hands-on engineering training for entry level engineers as well as more advanced courses in theory and license advancement training. Our engineering labs host numerous types of engines, generators, air conditioning and refrigeration labs, welding shop, machine shop, ancillary equipment and parts for demonstration and training as well as electrical labs, and a mock engine room." Engineering Classes currently offered include:

Approved Engine Course; Craft Skills - Machine Shop Course; Operational Pro-

cedures & Basic Hotel Services; Marine Diesel Engineering; Auxiliary Equipment & Basic Ship Construction; Chief Engineer Statutory & Operational Requirements; Applied Marine Engineering; Advanced Hotel Services; General Engineering Science I and II; HVAC Certification; License Advancement Course; Welding & Fabrication.

Maine Maritime graduates are working in and managing all aspects of the maritime industry, afloat and ashore, as well as the international business, transportation, logistics, power engineering, marine science, and marine biology fields, according to Captain G. Andy Chase, Chair, Department of Marine Transportation, Professor of Marine Transportation, Maine Maritime Academy. "With extensive experiential training backed up with solid academics, our students learn both technical and theoretical skills that allow them to respond to practically any situation and figure out creative solutions. Our graduates don't normally lead from behind a desk, but typically lead by doing."

The college was established in 1941 by an act of the Maine Legislature, and today it liberally mixes classroom learning with real-world experience. Capt. Chase points out that "we have all of the state-of-the-art simulators and indoor laboratories, and these are backed up by the real thing. We have a waterfront facility that rivals many boatyards, where our students both operate and maintain our fleet of over 50 boats. These include our 500 foot training ship State of Maine, our 80 foot tug Pentagoet with its dedicated (and fully operational) 200 foot liquid cargo barge, our 88 foot historic schooner Bowdoin, our 70 foot navigation training vessel Ned Nusunginya, and our mascot, the 16 foot Z-drive tractor tug Zeeboat, which was designed and built in the waterfront shops by staff and students."

Maine Maritime is not unique in that it, too, cannot rest on laurels or reputation, and it must continuously upgrade its technology on campus, in our simulators and labs, and also its fleet of vessels. "We have just leased our newest addition, the 70-foot navigation training vessel Ned Nusunginya, which we are outfitting with 10 student stations containing the latest integrated navigation systems," said Captain Chase. "Our machine shops and welding labs contain the latest technology, as do our shiphandling, navigation and engineering simulators. We are in the process of designing a new engineering technologies building to house even more and newer laboratories."

To further expand its influence, Captain Chase said "off campus we are exploring areas of industry that we have not traditionally served. We are opening connections with the inland (Brown Water) tug/barge fleet, the super-yacht fleet, the LNG industry, and we are re-opening our past connections with the nuclear power industry."

But new and high-tech is not the only direction we have moved recently. We have also re-invigorated our commitment to the traditional and the historic with our traditional sailing and seamanship program. We recently added a sail training program in which we teach the traditional skills associated with sailing and maintaining historic gaff- and square-rigged vessels. In 2008, our historic arctic schooner Bowdoin completed a training voyage to Greenland, crossing the Arctic Circle for the third time since we acquired her in 1988. She was manned entirely by our own students, faculty, and staff. Our graduates can now be found at every level in the crews of the tall ship fleets around the country and the world.

MMA was traditionally a deep-sea, unlimited tonnage, US flag, merchant marine training school, graduating third mates and third assistant engineers, and it continues to place its graduates in the deep-sea fleet. However, according to Captain Chase, the current trend for growth exists in the fleets of tugs, offshore supply vessels, research vessels, sailing vessels, small passenger vessels, ferries, etc. This smaller vessel fleet now numbers close to 10,000 vessels. "To remain relevant in today's maritime world, Maine Maritime Academy has diversified so that our graduates are afforded the opportunity to tune their education to suit their own goals. Our graduating class of 2009 achieved a 90% job placement rate before the end of their graduating year. While this is typical for us, it is somewhat remarkable that it has continued in spite of the recent economic downturn."

In recent years MMA has added new facilities such as an LNG simulator and a liquid cargo lab that includes a floating 16-ft. barge in a classroom pool that can actually be loaded and discharged just like the real thing.

"The overall trend in the maritime industry that we are constantly responding to is specialization. Historically we graduated deck and engineering officers who would go to work in any branch of the maritime industry, afloat or ashore. Now, every branch of the industry requires specialized training and certification. To adapt to this trend we have installed simulators, built labs, acquired vessels, and installed shops that allow students to gain as many of those specialized certifications before graduation as possible. We have likewise added a four-plus-one option that allows a student to gain a masters degree in business in one year after graduation," Captain Chase concluded.

Maritime Protective Services (MPS specializes in training vessel, company, and port facility personnel to meet the standards of the MTSA and ISPS Code, as well as in US and international maritime security regulatory compliance consulting and customized Offshore Asset Protection Programs.

Maine Maritime Academy

**Maine Maritime Academy's waterfront campus, located on Castine Harbor, features a fully-operational marina and is home to training and recreational craft. "Off campus we are exploring areas of industry that we have not traditionally served. We are opening connections with the inland (Brown Water) tug/barge fleet, the super-yacht fleet, the LNG industry, and we are re-opening our past connections with the nuclear power industry,"
said Captain G. Andy Chase, (pictured LEFT) Chair, Department of Marine Transportation, Professor of Marine Transportation, Maine Maritime Academy.**

(Photo credit: Maine Maritime Academy)

"In the US, our signature training offering is our Combined Vessel, Company, and Facility Security Officer (VSO/CSO/FSO) Course, which has been approved on behalf of both the Coast Guard and MARAD and is regularly scheduled in South Florida, said John Bennett, President, MPS. "In the UK, the regulations are a little different, so, our office in Poole, England, offers separate courses for the three types of Security Officer or runs a combined Company and Ship Security Officer Course."

According to Bennett, both MPS offices can bring any of these or its other maritime security courses to a client needing onsite training for multiple personnel, with the added benefit of being able to customize the training to the client's particular situation. It can develop and oversee drills and exercises, which are important for both assessing and reinforcing training. In addition to training, we provide a full range of MTSA and ISPS Code consulting and compliance services.

MPS, too, is investing in its offerings to stay ahead of the demand curve. "We invest a lot of effort into keeping the course material relevant and up to date, as well as ensuring that its presentation engages our students," Bennett said. "For example, the current module on piracy is much different from the training provided three years ago. The terrorism threat is also constantly mutating; even as recently as 18 months ago, there wasn't much concern about homegrown terrorism here in the U.S. In addition to monitoring the evolving threats to maritime security, we also have to keep current on developments in security equipment and be alert for new regulatory provisions and changes in policy guidance."

Like other places for training and education, MPS stands ready to interpret new and emerging market rules and regulations. "The implementation of the TWIC Program and the Advanced Notice of Proposed Rulemaking on TWIC readers both have informed our treatment of access control," Bennett said. "The incorporation of the requirements for Ship Security Officer into STCW has meant additional attention to details of these issues. Our goal is always to provide up-to-date, real-world maritime security information in all our training classes and consulting projects."

Webb Institute in Glen Cove, New York, is widely regarded as one of the finest engineering educational institutions in the country; Webb is an Honor Code college offering every enrolled student a four-year, full-tuition scholarship to come live in a mansion on the water and immerse themselves in an undergraduate education focused on the complex, challenging, and rewarding field of ship

MPS

"In the US, our signature training offering is our Combined Vessel, Company, and Facility Security Officer (VSO/CSO/FSO) Course, which has been approved on behalf of both the Coast Guard and MARAD and is regularly scheduled in South Florida, said John Bennett, President, MPS.

design engineering.

While Webb's physical isolation has proved to be a fertile breeding ground for some of the brightest minds in the U.S. maritime industry, it is not isolated from world events, and the recent global economic stall has had an effect at Webb. "Our endowment took a hit," said RADM Bob Olsen, USCG (ret), President, Webb Institute. "The endowment value is coming up with market, but we did have to make some cuts – a 20% reduction in my budget— and we had to make some reductions and defer some maintenance." He was quick to point out though, that all cutbacks were made with an eye to ensure that they did not impact the quality of its education. "I think that all things considered, if the market comes back as expected, we will be fine, following about a two-year position of austerity," RADM Olsen said.

In addition to its technical program, Webb sends its students out into the workplace – literally in vessel owning, building and design firms around the globe – every winter for two months to help them gain invaluable work experience. First year students go to work at a ship or boatyard; second year students go to sea; while third and fourth year winter work is spent designing ships. This, too, is a good gauge for the employment market overall, and according to RADM Olsen, despite challenges in the world economy, the outlook is still rather bright.

This year, Webb students were finding potential employers plentiful, he said, and the Navy – always a popular destination for Webb grads – is keenly investing in engineers today and for the future.

State University New York (SUNY) Maritime College enrolled its first two students in the newly approved 30-month assistant engineer (limited oceans) program. Upon completion of the program, these students will have earned an associate's degree in applied science and a license as an Assistant Engineer (limited-oceans) of steam and/or motor vessels. In addition, graduates also earn certification as QMED and Lifeboatman. Graduates will be able to serve on any sized vessel on inland waters and on near coastal vessels limited to 1,600 tons.

"We kept hearing from companies that they were looking for people to work in the engine room that didn't necessarily require a licensed engineer, but were better educated, better problem-solvers," said Captain Ernest Fink. "That's why we put this program together." Fink is chairman of the college's professional educational and training department and a 1975 graduate of SUNY Maritime College.

SUNY believes its new two-year program is of special interest to mariners currently working aboard in an unlicensed capacity in the engine room. This program is "for someone who's not looking for a four year bachelor's … who strictly wants to work in the towing industry or OSV industry," Fink said. He also believes the program is well-suited to veterans getting out of the service who may not want to go on to a traditional degree program. The associate's degree element of the program consists of 77 college credits and is now approved for veteran educational benefits. The course work can be done in four semesters plus one year of structured sea time for the STCW requirements. Previous sea time outside the program won't count, however. That's because sea time in the program includes STCW assessments and demonstration of knowledge. Fink pointed out that it would take someone three years in the field with at least 18 months sailing as a qualified member of the engineering department, to get the same credentials and licenses.

Serious Gaming

Next Level in Navy Training

By Curtiss Murphy, Project Engineer, Alion Science and Technology

The screech of metal reverberates through the passageway and rings in your head. The collision alarms blare. Everything in sight is bathed in the red glow of emergency lighting. An announcement over the 1MC calls you to action as you quickly head to your repair locker and report in to Damage Control. Battle Stations! It's a nightmare scenario of an underway replenishment gone horribly wrong and it's the kind of training a recruit experiences in Damage Control Trainer (DCT) at the U.S. Navy Recruit Training Command (RTC) in Great Lakes, Ill. DCT is a serious game, meaning it uses the richness and interactivity of video games for training, instead of entertainment. Funded by the Office of Naval Research (ONR), it was developed by a team of contractors led by Raytheon BBN Technologies. Team members include Alion Science and Technology, IDSI, I.D.E.A.S. and the University of Central Florida.

The Damage Control Trainer (DCT), part of the Virtual Environments for Ship and Shore Experiential Learning (VESSEL) project, is an advanced three-dimensional military simulation game that teaches recruits how to navigate a ship, follow communication protocols, increase situational awareness and perform basic damage control operations, all from their classroom computers. DCT provides a chance to learn and practice in the safety of a virtual world to prepare recruits for the rigors of their graduation exercise aboard Battle Stations 21.

DCT has been evaluated and deployed at RTC, the

Navy's boot camp for enlisted sailors and is already yielding impressive results. A recent University of Central Florida study found that recruits who spent one hour using the game reduced errors in situational awareness, decision-making and communication between 50 to 80 percent. The goal is to use DCT to support the training of approximately 40,000 recruits each year.

Recently, DCT won an award for Best Practices and Outstanding Initiatives when Training Magazine ranked the US Navy 17th of the Training Top 125 for 2010. The Damage Control Trainer may be new, but the Navy is no stranger to the use of simulations and gaming technology for training. In fact, if you look under the hood, you'll find another Navy success, Delta3D.

Delta3D is the open source engine for serious games. The Naval Postgraduate School (NPS) created Delta3D to enhance the Navy's ability to build high-fidelity trainers. Delta3D provides core capabilities for both serious gaming and traditional simulations including 3D visualization, level editing, physics, audio, large terrains, learning management and character animation. Perry McDowell, the Executive Director of Delta3D at NPS in Monterey CA, said originally Delta3D was built with the idea of combining various technologies that were freely available to create a commodity game and simulation engine for producing military training applications. "However, as we have improved and expanded the engine, it is really no longer merely a commodity, but now has features and tools that are only available on software costing considerable amounts," McDowell said.

Open source software means it is freely available (www.delta3d.org) without runtime costs or licensing fees. Because Delta 3D is open source, it is widely recognized and used across the modeling and simulation community.

Rear Adm. Dick Brooks, (USN, Ret), Senior Vice President and Manager of the Distributed Simulation Group at Alion Science and Technology, explains: "Contractors, like Alion, have adopted Delta3D because it enables us to build low-cost, high-impact training products for the DoD. We use Delta3D to build solutions, but we also add to it and submit enhancements back to the Naval Postgraduate School. It's a feedback loop that helps enrich the entire community."

With studies, such as the one from the University of Central Florida, and industry awards, such as the one from Training Magazine, the Damage Control Trainer and Delta3D are shining examples of how the Navy is taking training to the next level.

Marine Training

A Diesel Education Can Bring You on Board

By Tom Robertson, diesel education manager at Universal Technical Institute, Houston campus

There is more than one way to get on board a commercial vessel. A diesel education offers individuals seeking a marine career a strong and obtainable opportunity to learn the maintenance skills that are in high demand on working boats. Technical schools offering diesel programs provide motivated individuals a strong foundation to pursue technical opportunities in the marine industry. Why diesel?

A diesel education is unique in that the skills acquired can be applied to trucks, tankers, boats and other diesel-powered equipment. That's because the basic components of a diesel engine are common regardless of whether it's a big rig or commercial marine vessel.

For example, the U.S. Bureau of Labor Statistic reports that operators of large commercial fishing vessels are required to complete a Coast Guard-approved training course. Students can expedite their entrance into these occupations by enrolling in two-year vocational-technical programs.

With challenges such as rising oil prices and stringent EPA standards coupled with computerized diesel maintenance diagnostics, diesel expertise is increasingly important within the marine sector. Finding the right diesel training program is the first step toward a career as a diesel technician.

Begin your search by focusing on technical schools that balance diesel hands-on training with classroom instruction. Check for curriculums that cover everything from preventive maintenance and business skills to computer controls and high-tech electronics. It is also very important to find a technical school that maintains close relationships with major diesel manufacturers and employers. This not only strengthens the student experience and enhances the training, but also increases employment opportunities after graduation.

Most technical education programs last between six months and two years, however diesel programs are generally around 12 to 14 months. Tuition varies by program, but fortunately there are many plans designed to provide support for technical education, including federal financial aid to students who qualify, student loans, scholarships and grants. Many schools offer services to assist in securing housing and part-time jobs. To ensure a school is right for you, most offer campus tours and an opportunity to visit with staff and observe students in the learning environment.

Not all technical schools are created equal. The U.S. Department of Education (www.ed.gov) maintains a list of nationally recognized accrediting agencies. Included in its list is the Accrediting Commission of Career Schools and Colleges, an organization that assesses and accredits technical schools. For a school to receive accreditation, it must meet stringent standards and qualifications. These accredited technical schools should be the first to consider as you seek training.

With diesel technicians in high demand — both on land and sea – now is a great time to get on board and set a course for diesel training.

Tom Robertson is the diesel education manager at Universal Technical Institute's Houston Campus. Universal Technical Institute, Inc., is a provider of technical education training for students seeking careers as professional automotive, diesel, collision repair, motorcycle and marine technicians. For more information, visit ***www.uti.edu***

KTK Takes Delivery of their First Stan Tug 4011 "Orca VI"

On April 2, 2010, R.J. Lopez Ramirez, Managing Director of CPA/CPT, accepted on behalf of Kompania di Tou Korsou (KTK) the Damen Stan Tug 4011 Orca VI in the port of Tanjung Perak, Surabaya, Indonesia. With its 70 metric tons of bollard pull and autonomy, the Orca VI should give a boost to KTK's capabilities in the international towing and salvage business. Its first destination will be Panama.

Modernized Ships Return to Northern Fleet

After modernizing by Severnaya Verf shipyard, a part of United Industrial Corporation, the ship "Vice-admiral Kulakov" returned back to Northern Fleet. The first ship was modernized at OPK's shipyards, and in the middle of April was scheduled to be tested for further activity in Northern Fleet. To improve conditions of life, it was necessary to change some armament complexes and life-support system.

One additional ship "Admiral Chabanenko" is scheduled for modernization.

Vice-admiral Kulakov Dimensions

Displacement	6930 tons (normal), 7570 tons (full);
Length	163.5 m
Width	19 m
Draft	7.9 m
Max speed	29 knots
Range	500 miles
Complement	220 persons (including 29 officers).

Bollinger Delivers to Beemar

In April Bollinger Shipyard delivered the first of its 234-ft. class of Cummins-powered Platform Supply Vessels (PSVs) to Bee Mar Inc. The shipyard started building this series of vessels in 2008 and delivered the first in the series to the newly formed Bee Mar LLC in June of 2009. The Bee Mar newbuild fleet will consist of five 210-ft and three 234-ft American Bureau of Shipping (ABS) classed DP 2 PSV's. Each vessel has high cargo carrying capacities and meets or exceeds the customer requirements and demands for offshore marine support applications. The five 210-ft PSVs, including the M/V Busy Bee and M/V Worker Bee, have already been delivered and put to work in the Gulf of Mexico. The newly delivered 234 x 56-ft M/V Bumble Bee will add significant cargo capabilities to the Bee Mar fleet. The new Bee has capacities that include 598.1 cu. m. for fuel, 1,430.9 cu. m. of liquid mud, 169.9 for dry bulk and 98.4 cu. m. for fresh water. Loaded to a draft of 14.9 in., the vessel will have a dwt of 3,048.2 mt (3000 Lt). The 53.3 x 14.3 clear deck has a maximum cargo capacity of 2,032.1 metric tons. Main propulsion power for the Bumble Bee is provided by a pair of Cummins QSK60-M engines each delivering 2000 hp at 1800 rpm through Twin Disc MG5600 gears with 5.76:1 reduction to 81x68-in. propellers. Three Cummins QSM11 engines power the three 300 kW main generators. The Bumble Bee's 85 kW generator is also Cummins powered. The two 750 bhp Schottel, controllable pitch bow thrusters each have their own Cummins KTA19 drive engines. A 350 bhp stern thruster is powered by variable speed electric motor.

(Larry Pearson photo courtesy of Cummins Marine)

Bibby Acquires Dive Support Vessel

Bibby Offshore Limited, the Aberdeen-based provider of subsea construction and offshore management services, acquired the dive support vessel (DSV), Bibby Sapphire, from the vessel's present owner, Volstad Subsea AS. A $52.5m loan facility has been provided by Standard Chartered Bank to fully fund the acquisition. Standard Chartered Bank will act as sole lender in the transaction. **www.bibbyoffshore.com**

Topaz: Second Vessel for $225m BP Contract

Topaz Energy and Marine took delivery of Caspian Protector, a vessel to be deployed in Azerbaijan in support of a 10 year $225 million BP contract won in 2008. The Caspian Protector is a 61-m vessel designed for emergency recovery and response (ERRV), standby duties and fire fighting operations. It is the first vessel in the Caspian region to be equipped with three daughter craft and two fast rescue craft. The vessel is equipped with Dynamic Positioning capabilities (DP1) and will assist in the safekeeping of workers on various oil production platforms in the Azeri sector of the Caspian Sea.

The importance of ERRV's in oilfield safety services was demonstrated by Topaz in 2008 when another ERRV in Topaz's Azeri fleet, the 'Baki', was put to the test. A gas leak at one of the Azeri platforms prompted a rig evacuation of 211 personnel, one of the largest offshore evacuations worldwide. The evacuation was safely executed by the 'Baki' crew in less than two hours and resulted in BP awarding the Captain and crew the BP President's Award. The financing for the Caspian Protector is provided by DVB Bank of Germany as part of a $84 million term loan facility including three other vessels on time-charter to BP.

Roy Donaldson, COO, Topaz Marine

CCGS Viola M Davidson

The CCGS Viola M Davidson, 61-ft. Fisheries Research Vessel was launched March 3, 2010 on the high tide in the Unesco town of Lunenburg Nova Scotia. The vessel was designed and built by ABCO Industries Limited. CCGS Viola M Davidson will operate out of St Andrew's, New Brunswick. The vessel will carry out a variety of fisheries science work including trawling, dragging, bottom sampling and water quality analysis in the Bay of Fundy.

"The vessel has met and exceeded the contract requirements and our expectations. The Viola M

Davidson is a fine example of the very high quality design, workmanship and service from ABCO" said Roger Doucett, CCG Project Manager.

Email: info@abco.ca

Main Particulars

Length, o.a.	61 ft.
Length, w.l.	56.1 ft.
Beam	17.7 ft.
Draft	4.9 ft.
Propulsion	Volvo D12 @ 490hp
Speed	15 knots +

Gibdock Converts Solstad Offshore

Solstad Offshore is redeploying two platform supply vessels as potable water and fuel oil carriers to service Brazil's offshore rig market for Petrobras, after completion of a major conversion project at Gibraltar-based Gibdock. The project saw the 2006-built Normand Trym (3,326 dwt) in drydock and the 2008-built Normand Vibran (3,376 dwt) alongside at the Gibraltar yard, in order that mud tanks on each vessel could be converted to store 1500 cu. m. of fresh water storage, with other tanks converted for 800 cu. m. of fuel oil carriage. "We have undertaken routine repair work for Solstad in the past, building up a solid relationship with a high value client," said Richard Beards, Gibdock Commercial Director. "However, this is the first time we have undertaken one of their conversion projects. As well as general steelwork, the job included installation of steel tank floors, which were prefabricated by Gibdock in order to minimize the need to weld in position. All converted tanks were blasted and coated, with a specialized 500 micron thick Sigma paint applied in a single operation. The job also saw the No:1A ballast water tank (Forepeak Tank) blasted and coated for carriage of fresh water.

Normand Trym entering Gibdock's covered drydock.

The global maritime industry has a social networking, news and information portal to call its own: **MaritimeProfessional.com**. Log on and network with thousands of colleagues and potential business partners from around the globe, and keep up to date on critical maritime matters via our exclusive, insightful reports — including samples from last month found on the ensuing pages — from a global network of bloggers and industry insiders.

Joe Keefe Joins MaritimeProfessional.com

Joseph A. Keefe, former Editor of *The Maritime Executive* magazine and the *MarEx e-newsletter*, has joined MaritimeProfessional.com as its leading commentator.

Keefe brings more than 30 years of experience in a myriad of roles within the maritime industry and has made contributions on a wide variety of energy and marine transportation subjects, at sea and ashore. A graduate of the Massachusetts Maritime Academy, Keefe is also a licensed mariner and a recognized authority on marine risk management, especially in the fields of petroleum loss control and ship inspection. Notably, he previously served as the Appointed Nautical Inspector for the Bahamas Maritime Authority in the Western US Gulf. Mr. Keefe's written work has appeared in more than ten industry and trade publications and his online weekly columns have been a staple of maritime readers everywhere for many years.

Uniquely positioned to oversee the content of MaritimeProfessional, and bringing 13 years of journalism experience in a variety of roles, Keefe's enthusiasm is clearly evident. Out in front of his new assignment and first column, scheduled for next week, he added, "I very much look forward to the opportunity to contribute from the outset, and in a substantial way, to the maritime industry's most mature and respected group of publications."

MaritimeProfessional is the largest business networking site devoted to the marine industry. Each day thousands of industry professionals around the world log on to network, connect, and communicate.

Solar Assisted Power

Now more than half way through a two-year experiment, the solar-power assisted vessel Auriga Leader has a two-stroke Mitsubishi 7UEC60LSII engine of 14,315 kW at 105 rpm for main propulsion. What's new and makes this project so interesting is that she is also equipped with 328 solar panels to provide a contribution to the ship's propulsion needs and electrical hotel needs. Aside from the electrical part of the experiment, the test is to investigate the reliability of the panels to the demanding marine environment, in particular salt-water damage, wind pressure, and vibration. Some interim results published after four voyages are optimistic. the power generated was about 1.4 times more than in tests on land with the same panels. An additional bonus is the improved generating efficiency thanks to the wind's cooling effect. The total cost of the solar panel experiment is put at 1.6 million US dollars, on the plus side, the annual benefits to the environment are estimated to be a saving of 13 tons of fuel and the resultant non production of about 40 tons of CO2. At Lloyd's List 2009 Global Awards the Auriga Leader received the title of "Ship of the Year".

Now more than half way through a two-year experiment, the solar-power assisted vessel Auriga Leader is a Pure Car Truck Carrier of 60,213 GT., jointly developed by NYK and Nippon Oil Corporation. For main propulsion there is a two-stroke Mitsubishi 7UEC60LSII engine of bore 600 mm and stroke 2300 mm developing up to 14,315 kW at 105 rpm. What's new and makes this project so interesting is that she is also equipped with 328 solar panels to provide a contribution of 0.05 per cent of the ship's propulsion needs and one per cent of the electrical hotel needs such as pumps, cabin lighting, kitchen power etc. Aside from the electrical part of the experiment, the test is to investigate the reliability of the panels to the demanding marine environment, in particular salt-water damage, wind pressure, and vibration. To afford a certain amount of protection, the panels are not installed directly on the ship, but instead are mounted on a frame, then connected to the ship. Some interim results published after four voyages are optimistic. Despite the vessel encountering demanding conditions such as heavy rain with thunder and lightning, prolonged strong winds of approximately 20 meters/sec and three to four meter seas, the power generated was about 1.4 times more than in tests on land with the same panels. Further testing is required to determine the exact reason but the postulation is that the stronger sunlight caused by the higher sun angle, longer daylight and reflected sunlight from the sea all contributed to the higher output. An additional bonus is the improved generating efficiency thanks to the wind's cooling effect.

There is still some time to go until the trial is completed in December 2010. So far the total cost of the solar panel experiment is put at 1.6 million US dollars, which is obviously not commercially viable nor will be until the cost of solar panels reduces drastically. On the plus side, the annual benefits to the environment are estimated to be a saving of 13 tons of fuel and the resultant non production of about 40 tons of CO2. The testing continues and will assist in improving solar panels in the future. Last but not least is a benefit that is difficult to put a value on: at Lloyd's List 2009 Global Awards the Auriga Leader received the title of "Ship of the Year".

Posted by Keith Henderson
on 4/23/2010 1:24:35 PM

Originator of the concept of freedom of the seas

Hugo Grotius (1583-1645)

Hugo Grotius, also known as Huig de Groot, was a noted Dutch jurist and philosopher during the heyday of the Dutch Republic, which the Dutch East India Company was making a fortune trading spices and other goods between the Orient and Europe. The Dutch were in conflict with the Portuguese and the Spanish, whom the Dutch were challenging as the dominant European power in the Spice Islands of what eventually became Indonesia. In 1603, a ship of the Dutch East India Company captured a Portuguese merchant vessel laden with spices and other valuables. The Portuguese Government demanded return of the vessel. Litigation ensued and Grotius was retained by the Dutch East India Company to formulate a defense or rationale for the capture. Grotius wrote Mare Liberum (Freedom of the Seas) in 1609. The theory, which he articulated at length for the first time, is that the seas are outside of the control of land-based governments and all nations are free to use the seas without interference from other nations. The message was that trading prohibitions, such as those imposed by the Portuguese after "discovering" the Spice Islands, were illegal and that this somehow justified the Dutch seizure of the Portuguese merchant vessel (and retention of its valuable cargo). The argument succeeded in convincing the Dutch court, which upheld the legality of the seizure. The Dutch then went on to establish their own trading monopoly in Indonesia, supplanting the Portuguese. Despite some initial resistance in Britain, the concept of freedom of the seas survived and forms the basis for much of current international law, including the 1982 United Nations Convention on the Law of the Seas.

Posted by Dennis Bryant
on 4/23/2010 7:00:00 AM

Corvette "Soobrazitelniy" Launched

Soobrazitelniy Main Particulars

Displacement	2,000 tons
Length	100 m
Width	13 m
Max speed	27 knots
Range at a service speed	4,000miles
Complement	100

Russia's Severnaya Verf shipyard, a part of United Industrial Corporation (OPK), launched the first serial corvette Soobrazitelniy. The project of this corvette was designed by Almaz, central design bureau (St.Petersburg). The corvettes are intended for functioning in the nearest sea area and fighting with surfaces ships and submarines and also for normal military operations. The first ship of this series of ships was Stereguschiy, built in October 2008 and intended for Baltiysky fleet. "This ship is technically equipped and capable to search, find and destroy submarines and carry out shock functions," said Viktor Chirkov, commander-in-chief and vice-admiral of Baltiysky fleet. Chirkov said that Soobrazitelniy was the first serial ship, completed in time, determined by the customer. The director of OPK Shipbuilding Andrey Fomichev emphasized that the launching of the first corvette was evidence of stable financial support from RF Ministry of Defense. Today, Severnaya Verf shipyard continues work on two corvettes "Boykiy" and "Stoykiy".

Noordhoek Pathfinder Sets Out

Noordhoek Survey received the DPII ROV Survey SV Noordhoek Pathfinder, which has completed its verification trials and its first assignment.

The vessel met all of Noordhoek Survey's Quality Assurance and Quality Control criteria. The DPII ROV Survey SV NOORDHOEK PATHFINDER is now back in The Netherlands mobilizing immediately for its second assignment.

The Noordhoek Pathfinder is mobilized with a Grade 2 Dynamic Positioning system (DPII), diesel electric drive, a large moon pool, a 25 ton offshore crane.

It is also equipped with Work & Inspection Class ROV systems, Side Scan Sonar Tow-Fish, McCartney Focus 2 ROTV systems and an exceptional survey suite.

Hallin Expands Fleet

Subsea contractor Hallin Marine expanded its fleet with the purchase of the dynamically positioned (DP2) vessel the Penrith. Hallin knows the 67m Penrith well, having operated the vessel since its launch in 2008 under a time charter from owners Seacor Marine.

Will the Korea Who Blew Up that Warship Report to the Principal's Office?

Of all the things the shipping industry does not need right now, a shooting war between North and South Korea tops the list.

South Korea's government believes it was a torpedo that blew up and sank its warship near the border with North Korea last month. The 1,200-ton Cheonan was blown in two on March 26, 2010, by an "external explosion", according to an investigation, killing 40 of the 104 crew and leaving six missing, presumed dead. If the Cheonan was indeed hit by a torpedo, there are only two possible places the weapon could have come from.

Firstly, the ship was really close to Dear Leaderland and as they say up there in the DMZ, the torpedo doesn't fall far from the tree. No one has more motivation to shoot up a South Korean ship than the lunatic the country it shares a border with. There was even a report where a demoted general was seen with the North's commander-in-grief wearing four stars on his collar when he was supposed to have been busted down to a three-star. This was, the news report breathlessly declared, obviously a reward for the general sinking the warship. The second option is that some Einstein on board messed up the coordinates while launching one of the six torpedoes carried in the arsenal and the ship blew herself up.

Seoul has not directly blamed the North Koreans for sinking its boat, which appears to give credence to theory number two. In matters of Asian diplomacy it is never wise to underestimate the power of saving face, but if South Korea does blame the North to save itself the embarrassment of admitting it sank its own ship, the pressure to retaliate from the people would be overwhelming. It is unthinkable that the country could allow the deaths of 40 of its seamen to go unavenged.

So we sincerely hope North Korea did not fire that torpedo, and if it was indeed the South, that they will be big enough to admit it. Asia is leading the world out of recession and stability in the region is pretty important. Nice as it may be to stick a hoist up Kim Jung Il's petard, disputes are only fun until someone nukes a city.

Posted by Greg Knowler
on 4/27/2010 10:53:53 PM

In offshore Brazil

Kongsberg DP Leads the Way

With the continued growth and the high potential of the Brazilian O&G market, the demand for Kongsberg DP systems in ships, support vessels, FPSOs and MODUs is steadily increasing and Kongsberg Maritime do Brasil S.A is expanding and enhancing its presence and investments in the country. Kongsberg Maritime AS, has been engaged in various technological areas related to marine activities for more than 50 years and have been present in Brazil since 1980.

Illustration of the pre-salt layers.
(Illustration Courtesy Petrobras)

For their Brazilian operation its focus on client needs is being enhanced by increasing their physical presence in Brazil. Kongsberg Maritime do Brasil S.A will soon be opening a new, larger office in Rio de Janeiro and a operations base and training center in Macaé. It has also been increasing the number of DP system technicians they have on call in Brazil, in order to decrease the amount of waiting time for its clients when DP system maintenance and troubleshooting is necessary and also to install and commission their DP and Navigation systems during ship construction. Through this it ise also contributing to the growth of the country as these new technicians will be Brazilians.

Presently, Kongsberg has delivered DP systems to around 200 ships, support vessels, FPSOs and MODUs, working in the Brazilian offshore O&G fields and this number is growing as new vessels are built in the bustling Brazilian Shipyards and different plays go through various stages of development, from drilling to testing, from there to production and then from FPSOs to tankers. Today the vast majority ships, support vessels, FPSOs and MODUs working in the offshore O&G fields in Brazil, need to have a DP system installed and functioning as they are vital systems for offshore operations. Now with the deepwater pre-salt fields in Brazil being explored and developed, the DP system once again proves to be vital, as ships, support vessels, FPSOs and MODUs working the pre-salt need to maintain exact positioning when anchored over subsea wells and subsea systems that may be as deep as 2,200 meters.

Posted by Claudio Paschoa

Aren't you glad not to be in

Asia-Europe Air Freight

Ocean shippers must be thanking their lucky stars they aren't involved in sending goods by air to Europe.

But could something happen that would shut down most of the ports in continental USA? The answer is yes, but the cause will be no natural disaster.

Hurricane Katrina closed New Orleans and many of the Gulf ports and those on the eastern seaboard are regularly threatened by hurricanes. The Big One could put Los Angeles and San Francisco in the sea.

But an earthquake or the weather will not be what slams down the gate. That will come after a port is attacked and it is the nightmare "bomb in a box" scenario that drives the US in boosting security.

Several million containers cascade in and out of a multitude of ports every year. Keeping tabs on such volume is near impossible and the technology is not yet available that can scan a box and every item inside.

What the vast US security apparatus is doing is trying to push the risk offshore with the various container security schemes and the known shipper programme. Identifying a dodgy box long before it reaches the US is the best way to keep the country secure.

That is not easy. As the world's biggest economy, the US consumes a vast array of commodities, the bulk of which are imported via ocean. Each member of the supply chain can potentially sabotage a shipment, so vetting all players is complicated, time consuming and expensive.

Transporting goods involves a complex linking up of manufacturers, 3PLs, consolidators, truck and rail companies, ocean carriers, terminals, agents, forwarders, buyers, financial services, etc.

No one holds much inventory these days so much of the thousands of tonnes of goods being sold at retailers across the US is essentially stored in the supply chain pipeline. If ports at the destination shut down, cargo will immediately begin to stack up at every point.

Where airlines can simply refuse to accept cargo and forwarders will send freight back to their customers or store it in a warehouse, the size and volume of sea freight means if ports are shut in the US, ships in Asia will stop loading and terminals will quickly become choked with boxes.

The world may regard US initiatives to combat real or imagined terror attacks as being overzealous, but the impact of a successful terrorist mission would have a crippling effect on anyone involved in trade with the US. And that is pretty much the whole world.

Posted by Greg Knowler
on 4/21/2010 5:10:43 AM

Cape Wind Project Gets Green Light

Late last month Secretary of the Interior Ken Salazar approved the Cape Wind renewable energy project on federal submerged lands in Nantucket Sound, but will require the developer of the $1 billion wind farm to agree to additional binding measures to minimize the potential adverse impacts of construction and operation of the facility. “After careful consideration of all the concerns expressed during the lengthy review and consultation process and thorough analyses of the many factors involved, I find that the public benefits weigh in favor of approving the Cape Wind project at the Horseshoe Shoal location,” Salazar said in an announcement at the State House in Boston. The Cape Wind project would be the first wind farm on the U.S. Outer Continental Shelf, generating enough power to meet 75 percent of the electricity demand for Cape Cod, Martha's Vineyard and Nantucket Island combined.

A number of similar projects have been proposed for other northeast coastal states, positioning the region to tap 1 million MW of offshore Atlantic wind energy potential.

Jumbo Offshore: Installs Offshore Wind Equipment

Jumbo Offshore’s crew, engineers and subcontractors have completed the first leg of its current Transition Piece (TP) installation project. Jumbo’s DP2-vessel Jumbo Javelin installed the TP’s, the first 18 of a series of approximately 110, within schedule. The work for the Greater Gabbard Offshore Wind Farm (GGOWF), off the UK’s south-east coast, will take up the better part of the rest of the year. This is the first time that TP’s have been transported and installed using a free floating vessel on DP. After loading the 270 t TP’s in the Port of Flushing, the Jumbo Javelin sailed, with open hold, to the offshore location. There, it positioned itself on DP and lifted the first TP onto the monopile. After leveling the TP to its final position, the space between TP and foundation pile (annulus) was filled with grout to fix it permanently. It was the first time that TP’s were installed on monopiles from a free floating vessel on DP in one trip. This ship-based, self stabilizing platform actively compensates vessel motions, enabling safe access and support in wave heights up to Hs = 2.5 m (significant wave height). The Jumbo Javelin uses its DP2-system to create, among others, a working environment in which TP’s can be installed in wave heights up to Hs = 1.5 m.

$73.6M for New NOAA Fisheries Survey Vessel

NOAA awarded a $73.6m American Recovery and Reinvestment Act contract to Marinette Marine, for the construction of a new fisheries survey vessel. The vessel will be the fifth in a series of state-of-the-art Oscar Dyson-class ships built for the agency. “Our fisheries and marine ecosystems are critical to our nation’s economy,” said Jane Lubchenco, Ph.D., under secretary of commerce for oceans and atmosphere and NOAA administrator. “Thanks to the Recovery Act, this new vessel will greatly enhance our understanding of our ocean resources and play a vital role in supporting NOAA’s mission.” The ship will be equipped with a full suite of modern instrumentation for fisheries and oceanographic research.

Mazloum to Head Crystal Fleet Ops

Crystal Cruises' President Gregg Michel announced the promotion of Thomas Mazloum to senior vice president, operations.

Mazloum, who has served as Crystal's senior vice president, hotel operations, since 2003 assumed the responsibilities for the fleet's marine operations with the March 31, 2010 retirement of Joe Valenti, Crystal's senior vice president, marine operations.

The Austrian-born Mazloum began his cruise industry career at Crystal Cruises with the 1990 launch of the line's first ship, Crystal Harmony, in Nagasaki, Japan. In the following nine years, he was rapidly promoted to various food and beverage, land programs and hotel operations positions within Crystal. At age 29, he became the line's youngest-ever hotel director. Mazloum left Crystal in 1999 to be part of the inaugural team and serve as hotel director for Disney Cruise Line's Disney Wonder eventually leading to the position general manager for Epcot at Walt Disney World.

Mazloum returned to Crystal Cruises in 2002 as vice president, hotel operations and was promoted to senior vice president within a year, prior to the launch of Crystal Serenity.

Seroka Named New APL President, Americas

APL named Gene Seroka its new President in the Americas. Seroka, a 21-year-veteran of the company, replaces John Bowe who is leaving in June. Until recently the Regional Vice President for the Middle East, Seroka will relocate to the company's regional headquarters in Phoenix, Arizona. He'll be responsible for all of the shipping, intermodal transportation and terminal activities of APL.

NAVSEA Employees Recognized

Four Naval Sea Systems Command (NAVSEA) employees were recognized for engineering excellence by the American Society of Naval Engineers (ASNE) at the society's conference in Arlington, Va. NAVSEA's Capt. Albert Grecco, Craig Brandenburg, Stephen Michetti, and Christopher C. Bassler received awards for their accomplishments. NAVSEA develops, delivers and maintains ships and systems on time and on cost for the United States Navy.

Volpenhein to Lead Samson in Asia

Samson promoted Kris Volpenhein to Asia Technical Sales Manager. Effective September 1, 2010 Volpenhein will provide focused technical and sales efforts to support Samson's offshore and commercial marine markets throughout Asia. Volpenhein has been part of the Samson research and development department for the last four years as both an application engineer and technical manager. Volpenhein has a Bachelor of Science degree in mechanical engineering from the University of Cincinnati.

Chemoil Appoints Valenzuela

Chemoil appointed Veronica Valenzuela as Managing Director of one of its operating subsidiaries, Chemoil Latin America Inc. Valenzuela joined Chemoil in 2009 and has more than 30 years of industry experience, including seven years as the general manager of Chevron's operations in Panama.

Willard Marine Expands on East Coast

Willard Marine announced plans for an expansion site in Virginia Beach, VA. The new facility is located in the Oceana South Industrial Park near the Oceana Naval Air Station and is scheduled to open in May 2010. The 13,000 sq. ft. facility will serve as Willard's primary East Coast manufacturing and reconditioning center. Willard Marine will manufacture and assemble its 16 to 43 ft. line of aluminum and fiberglass composite specialty boats designed for the U.S. Navy, U.S. Coast Guard, Homeland Security and both Domestic and International Law Enforcement Agencies.

Star Bulk Orders a Ship

Star Bulk Carriers Corp. signed a contract with Hanjin Heavy to build a second Capesize vessel (180,000 dwt), a sister-ship to the first vessel ordered, with expected delivery in November 2011.

Marinette Marine Wins More Coast Guard RB-Ms

Marinette Marine has been awarded an additional 30 Response Boats – Medium (RB-Ms) by the U.S. Coast Guard. With an approximate value of $63.6m, the new boats are part of a multi-year, Coast Guard contract requiring the construction and delivery of up to 250 RB-Ms at a total contract value of up to $600m.

NAT Increases Fleet to 20

Nordic American Tanker Shipping Limited (NAT) entered into a preliminary agreement with Samsung Heavy Industries to build two 158,000-dwt suezmax tankers to be delivered to the company in the third and fourth quarters of 2011. The purchase prices of the two newbuilding vessels are $64.5/$65m, with about half to be paid on the signature of the definitive contracts and the balance to be paid on delivery.

WRSystems: Helping Navy with Systems Upgrades

WRSystems provides a range of system technologies and upgrades to address the Navy's priority to keep the fleet at the highest operational level by avoiding any potential obsolescence issues. Products and services include a depth reporting system developed and produced by WRSystems and the Department of the Navy, which was partially funded through the Secretary of Defenses' Acquisition Challenge program. The Digital Depth Detection (D3) system is a technology upgrade for an older system, which is becoming increasingly hard to support. WRSystems is also producing speed indicator transmitter systems and small combatant craft integrated bridge systems for the Navy. In addition to these systems, the firm has recently launched a new commercial maritime green venture, Emsys, a continuous stack emissions monitoring system. "We are committed to providing our customers the most ad-

Sherwin-Williams Chosen to Coat "Mighty Mo"

Nearly 5,500 gallons of Sherwin-Williams coatings have been applied to the historic Battleship Missouri, which recently returned to her home pier near the U.S.S. Arizona Memorial at Pearl Harbor, Hawaii.

The ex-USS Missouri, or "Mighty Mo," is known as the site of Japan's unconditional surrender to Allied Forces on September 2, 1945, ending World War II. The ship was launched in June 1944 and provided firepower in the decisive battles for Iwo Jima and Okinawa. On Sept. 2, 1945 – 65 years ago this summer – the Missouri served as the site of Japan's formal, unconditional surrender to Allied Powers while anchored in Tokyo Bay, Japan. The famous ship also saw action in the Korean Conflict and Persian Gulf during Operation Desert Storm. Today, the ship is under the care of the non-profit USS Missouri Memorial Association, which owns and operates the ship as the Battleship Missouri Memorial, a historic attraction and memorial in Pearl Harbor. Work on the $18 million refurbishment began in October under the guidance of BAE Systems at the U.S. Navy's Pearl Harbor Naval Shipyard. The superstructure was pressure washed by memorial volunteers. BAE Systems and its subcontractors used power tools to remove remaining paint, spot-primed bare steel, airless-sprayed the ship's superstructure and freeboard, and plural component-sprayed the underwater hull. Several Sherwin-Williams products are being used to protect the 887 ft. battleship.

vanced solutions to meet their specific needs," said Dave Edwards, senior vice-president and director of WRSystems' Engineering Services Division. "Tremendous effort went into the design, development, and production of these systems and their supporting items." www.wrsystems.com.

New Odessa Office for WSS

Wilhelmsen Ships Service relocated its Odessa office to upgraded premises. The new offices, situated in the busy Ukrainian Black Sea port, offer a modern, safe and accessible environment for staff and customers. The new office address is: 21/23 Vice-Admiral Zhukov Lane, Business Centre "Olvia", 7th Floor Office 73, 65026 Odessa, Ukraine.

ABB Wins $110M Order

ABB won an order worth $110m from Eni Norway to build a power link between a new oil and gas platform in the Barents Sea and the Norwegian power grid. The 123kV, 75MW XLPE insulated cable is claimed to be the longest, most powerful cable ever delivered for an offshore application. It will supply AC (alternating current) power from the mainland grid in Norway to Goliat, a floating oil and gas production, storage and offloading unit.

CMA CGM Takes Figaro

CMA CGM took delivery of the CMA CGM Figaro, an 8500 teu containership built by Samsung Heavy Industry. The CMA CGM Figaro is registered in France and will sail under the French flag (RIF). In compliance with CMA CGM's environmental policy, and like all new vessels of this type ordered by the Group, the CMA CGM Figaro is equipped with a combination of innovative environmental features, including:

- the Fast Oil Recovery System, which enables bunkers to be rapidly recovered at any time, hence significantly limiting the environmental consequences should there be an incident at sea;
- an electronically controlled engine, reducing oil and fuel consumption by respectively 25% and 3%. Thanks to this new engine, the vessel can – if necessary – be operated at super eco-speed (14 to 15 knots);
- a multi-chamber waste compactor to recycle garbage on board;
- pre-equipment to connect to a port's electricity supply during operations.

Teekay Selects ABS NS

ABS Nautical Systems has been selected by Teekay Corporation, which moves more than 10 percent of the world's seaborne oil, as their fleet management software provider. Teekay will be replacing a legacy management software system they currently have in place with ABS Nautical Systems' fully integrated system.

www.abs-ns.com

HydraTech Selects Distributors

HydraTech announced two new distributors: The Great Lakes Group, located in Cleveland, Ohio, and Puerto Rico Towing and Barge Company located in San Juan, Puerto Rico provides towing services and vessel assistance to commercial vessels and barges throughout the Caribbean. The Marine HydraWrap is an ABS Design Approved carbon fiber composite repair system for pipelines, fittings and bulkheads.

www.hydratechllc.com

Sener Helps Repair Argentinean Navy Icebreaker

A contract came into effect for Sener to carry out the engineering work and provide technical assistance in repairing and modernising the icebreaker Almirante Irizar (RHAI) following a fire on the vessel in April 2007. The scope of the contract includes engineering the stripping down of the equipment and damaged structure, the basic and development engineering for all the areas, equipment and systems affected by the repairs / modernisation, and technical support throughout the process, including ocean trials and ice trials.

The ship's last campaign was between December 2006 and April 2007. On the return journey, when 140 miles to the east of Puerto Madryn, a fire broke out in the electric generator room which spread quickly throughout the ship's engine room. It was evacuated and, once the fire had been put out, it was towed to the Puerto Belgrano Naval Base. After assessing the various options, the Argentinean Navy chose to go ahead with the vital repairs and modernization which are now underway.

Kongsberg Maritime Tech Opens in St. Petersburg

The office of the new wholly owned Kongsberg Maritime Company, Kongsberg Maritime Tech LLC was officially opened in St. Petersburg, Russia on March 23, 2010. The new Kongsberg Maritime company has been established to further strengthen Kongsberg Maritime Simulation & Training's technology and the 15 strong team will have a special focus on advanced simulation technologies, development and hydrodynamic modeling. Kongsberg Maritime Simulation & Training already has close simulator development ties with the team in St. Petersburg, having co-operated with them during the development of a new Kongsberg Maritime offshore simulator.

Genoa Design Wins Iraqi Navy Project

Genoa Design if St. John's, Newfoundland, won a contract to provide production design and lofting for two 60-m Offshore Support Vessels for the Iraqi Navy.

Two U.S. based companies are leading the project: RiverHawk Fast Sea Frames in Florida, as primary contractor and Gulf Island Marine Fabricators, L.L.C. in Louisiana, as construction sub-contractor.

The project falls under the U.S. Foreign Military Sales program, with Naval Sea Systems Command, Washington, D.C., as contracting entity for the Iraqi Government. Vessel completion is expected by December 2011.

www.genoadesign.com

SEAaT: ETS is New Opportunities for Bunker Fuel Market

SEAaT (Shipping Emissions Abatement and Trading), the industry association dedicated to shipping emissions abatement and trading, called for the involvement of the bunker fuel industry in discussions for the establishment of a shipping emissions trading scheme (ETS), citing strong commercial opportunities for the sector. An ETS is currently under discussion at the International Maritime Organization (IMO) to encourage more efficient shipping and reduce greenhouse gas emissions from the global fleet. An ETS was launched successfully by the European Union for large land-based emitters in 2005 with the inclusion of aviation planned for 2012. In UNFCCC and IMO discussions on reducing greenhouse gas emissions in the shipping sector, there is strong support for an ETS to operate under the auspices of the UNFCCC and IMO. Under an ETS for shipping, either the ship operators or charterers would have to acquire carbon credits that reflect their bunker fuel consumption. Bunker fuel traders and suppliers could supply carbon credits in parallel to supplying fuel, using their existing trading infrastructure to secure the best carbon prices. John Aitken, Secretary-General of SEAaT, said, "The ETS is by far the fairest, most commercially-viable means of encouraging more efficient fuel use. The bunker fuel companies are in an excellent position to both trade credits, and to support their customers in getting the best deal for their fuel, and helping drive environmental compliance strategies." "There are both multilateral discussions at IMO and UNFCCC, as well as among the trade associations. SEAaT would welcome the participation of fuel supply companies in these, as they have perhaps the most significant knowledge and experience of trading systems in the entire sector. We would also encourage them to develop knowledge of carbon trading by joining SEAaT as associate members and participating in the wider debate."

www.seaat.org

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Intermoor Wins Contract Offshore Equatorial Guinea

InterMoor won a preset mooring project for Noble Energy offshore Equatorial Guinea. InterMoor will be providing the design, engineering, procurement and installation services for preset moorings in the Aseng Field. Five preset mooring legs will be installed at a water depth of approximately 3,445 ft.

The Pride South Pacific and the Atwood Hunter are the rigs Noble Energy will be used for this project, and the Maersk Terrier will be the installation vessel.

Noreq - Bergen Group Dreggen Join Forces in Brazil

The two Norwegian companies, Noreq and Bergen Group Dreggen, have recently announced that they have established their office in Rio de Janeiro, Brazil. Both the companies are well known as suppliers of quality marine equipment to both the offshore and shipping industry world-wide.

The increasing activity and the development of new fields in Brazil have lead to a greater demand for the equipment in question and this have now resulted in the establishment of our local office.

This will gain our ability to better serve existing and new clients in the area.

(Photo courtesy Noreq AS)

Morten J. Pettersen (Bergen Group Dreggen), Halldor Rongve (Bergen Group Dreggen), Styrk Bekkenes (Noreq), Izabel Braz Harwood (NBIO).

RWO's WWT-LC

To fulfill emerging guidelines for Sewage Treatment plants set by the IMO, Bremen based RWO enhanced its WWT system. Approved and certified by the German authority Seeberufsgenossenschaft (SeeBG), the three-chamber systems operates with a Mixed Bed Biofilm Reactor (MBBR), designed to provide process stability and excellent effluent results. It is suitable to treat black and grey water or black water only. Vacuum systems as well as grease traps are optionally available.

www.rwo.de

New Autopilot Series

The German based navigation company Raytheon Anschütz announced the upcoming release of its new NautoPilot 5000 adaptive autopilot series, the successor to its NP 2000 autopilot series. The NP 5000 is based on the same Anschütz steering algorithms, but is enhanced to include functions for economic and precise navigation such as an integrated steering performance display and a new course control operation mode. The new autopilot's most obvious feature certainly is its large graphical display which offers six different day and night modes within an intuitive to operate touch screen. The NP 5000 autopilot series features up to three possible modes of operation.

www.raytheon-anschuetz.com

ML-12 Stringing Line

ML-12 is Samson's newest 12-strand stringing line, blending Innegra-S, a high modulus polypropylene (HMPP), and Dyneema, a high modulus polyethylene (HMPE, a blend of fibers designed to give ML-12 performance characteristics between traditional polyesters and high-performance 100% Dyneema stringing lines. Because ML-12 offers lighter weight and higher strength at the same diameter as traditional polyester lines, it can be used on existing equipment for heavier pulls, or it is possible to downsize the line on equipment to pull the same load and store longer lengths on the reel. Furthermore, ML-12 also offers improved elongation over traditional polyester lines. **www.samsonrope.com**

Epoxy Repair Workshops

Wencon provides epoxy-based Repair Kits for emergency repairs on ships. During the last year it focused onfinding, training and certifying marine-oriented workshops, in some of the world's major ports around the world, to perform durable repairs with epoxy. To date, 12 workshops have been certified, and March 2010 a workshop in Italy will be added to the list. If you, for instance, choose to refurbish a seawater filter with Wencon it will, when done correctly, retrieve both its initial durability and functionality and typically at a fraction of the cost of a new spare part. The goal for 2010 is to certify additional 8 workshops around the world. **www.wencon.com**

C4ISR System to USCG

(Photo courtesy L-3 Maritime Systems)

L-3 Communication Systems-East (CS-East) delivered the C4ISR system for the U.S. Coast Guard's first Sentinel Class Fast Response Cutter (FRC). The system was designed, built, tested and delivered in 14 months. Earlier this year, L-3 was awarded a contract by Bollinger Shipyards to provide the C4ISR system for the next three Sentinel Class ships. The system includes the alarm and announcing system and integrated bridge and navigation control system from L-3 Maritime Systems, as well as CS-East's MarCom integrated and automated internal/external voice communications system and Symphony automated communications control manager for radio rooms. **www.L-3com.com/cs-east**

New Code Compliant Composite Repair System

Belzona announced improvements to an existing repair system that allows compliance with international design standards. Belzona's SuperWrap is touted as a novel solution, designed for systems operating up to pressures of 3625psi (250bar). Belzona SuperWrap is the first composite material from Belzona certified under ISO/TS 24817 and ASME PCC-2 standards. Compliance to these standards means it is engineered and designed for conditions that the repair will encounter throughout its 20 plus year life. It is an alternative to the replacement of pipe work.

www.belzona.com

SSN800 Hose Reel

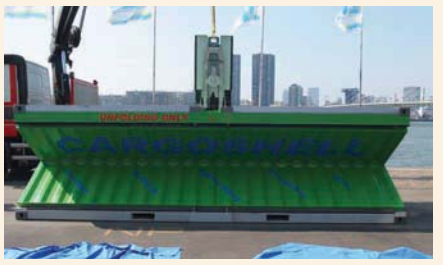
The Hannay SSN800 series stainless steel hose reel (below) features a narrow frame, ideal for mounting in smaller spaces. With no paint to chip and no potential for rust and corrosion, these reels are ideal for the food and beverage, dairy, pharmaceutical and cosmetics industries. Typical applications include washdown, chemical transfer, potable water, food ingredient transfer and even fire protection. The SSN800 is constructed of fine grade 304 stainless frames, discs and drum. It handles single ID hose from 3/4-in to 1-in, and can accommodate pressures to 1000 psi and temperatures from +20 F to +400 F (-7 C to +204 C).

Email catalogs@hannay.com

Flygt 4600 Series Submersible Mixers

Thousands of Flygt mixers, manufactured by ITT, are employed in challenging applications within the oil and gas industries. With this application in mind, a number of special features were incorporated at the design stage to ensure the reliable operation of our mixers. These include the unique Flygt extended "jet ring," similar to the rings used on ship thrusters, to increase mixing efficiency. These jet rings also ensure exemplary cooling of the mixer prolonging motor life. **www.flygtus.com**

The Foldable Shipping Container



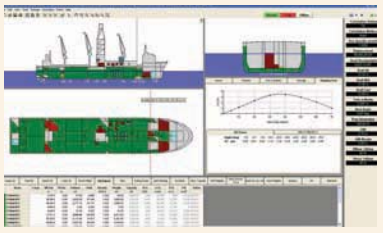
Cargoshell are makers of the new composite, foldable shipping container, a development touted by the company as helping to make container shipping cleaner, more efficient and safer. Current containers are made of steel, with millions of new containers produced every year, with CO2 released during the production. Replacing most of the steel of the container with composite, the maker contends, an important CO2 reduction can be realized. A second innovation of Cargoshell is the ability to fold the container. One person can do the folding and unfolding, without the need for an auxiliary motor nor separate parts in the container. The volume of a folded Cargoshell is 1/4 of that of a traditional steel container. This allows to save as much as 75% of precious storage space. Folded containers can also be transported more efficiently, helping to save significantly in the movement of empty containers. A full scale working prototype, protected by different patents, proves the idea as feasible, however Cargoshell is not yet ready for production.

www.cargoshell.com

Hand-Held Scanning Technology

ABS Nautical Systems and SYS-TEC have partnered to develop a hand-held scanner technology for the maritime industry. This latest technology is a best practice approach to inventory management and will provide a more efficient and reliable method for vessel owners and operators to preserve their offshore assets. The scanner upgrade also will give customers the ability to perform audit/cycle counts, issue parts and compile inventory reconciliations and queries in both onshore warehouses and aboard a vessel. This will increase the accuracy and timeliness of inventory management, like spare parts while reducing account and control costs. This solution will be available as part of ABS Nautical Systems' NS5 Purchasing & Inventory module and customers will have the option to choose between Intermec and Motorola scanners. **www.abs-ns.com**

Herbert Engineering's CargoMax



CargoMax is HSSI's customizable product line of Classification Society approved shipboard loading instruments with installations on over 1500 vessels. CargoMax is used on board tankers, bulkers, RoRo's, containerships, barges and other vessel types to maximize cargo utilization, and monitor margins of safety during cargo operations. **www.herbert.com**

Diesel Particulate Filter

Mitsui O.S.K. Lines, Ltd. announced the joint development with Akasaka Diesels Limited of a diesel particulate filter (DPF) for vessels that use marine heavy fuel oil. Tests showed that the device removed more than 80% of particulate matter (PM) from diesel emissions. In the test, a DPF was installed on the main engine of an MOL Group-operated coastal ferry, the Sunflower Kogane. This test marked the first successful use of a self-regenerating DPF on a large vessel using marine heavy fuel oil. The Sunflower Kogane (9,710 gt, main engine: 9,267kw) is operated by The Diamond Ferry Co., Ltd., an MOL Group company. The DPF includes filters made of silicon carbide ceramic fibers, which remove PM from the exhaust. An internal heating system automatically burns off accumulated PM in the filter to eliminate clogging. **www.akasaka-diesel.jp**

EnSolve's Compact PetroLiminator

EnSolve Biosystems has completed and passed the MEPC 107(49) certification tests for its new compact PetroLiminator 200M (PL 200M) Oil Water Separator (OWS) system. EnSolve's patented PetroLiminator system is a marine OWS that uses a combination of physical and biological means to treat oily bilge water. The PL 200M OWS system incorporates microorganisms to consume hydrocarbon wastes in the ship's bilge water, so treated bilge water can be safely and legally discharged overboard. It treats both pure and emulsified oil, as well as detergents, degreasers and other chemicals in the water. This "green" technology generates minimal hazmats and produces no harmful by-products. No flocculant or coagulant chemicals are used, substantially reducing sludge accumulation. **www.ensolve.com**

Dual Input Differential Manometer

Omega's new series of manometers feature dual display and dual pressure inputs. Pressure is displayed in one of four user selectable units (psi, mbar, inH2O, and mmH2O). A protective rubber boot is included with the HHP886 and models are available with a USB connection or wireless interface for real time data logging to a computer.

www.omega.com/pptst/HHP886.html

200 Amp Fittings

Keeping pace with growing on-board power demands, Hubbell Marine offers a marinized, UL Listed 200 amp Ship-To-Shore System. Made in the U.S., the heavy-duty 200 amp Ship-To-Shore System includes fittings, black boxes and other accessories NEMA 4X rated for superior water resistance in the harsh marine conditions. When installed correctly, the state-of-the-art fittings are fully interchangeable with other UL 1686 configured and listed devices, such as Crouse-Hinds Arktite and Appleton Powertite.

www.hubbell-marine.com

BUYER'S DIRECTORY

This directory section is an editorial feature published in every issue for the convenience of the readers of MARITIME REPORTER. A quick-reference readers' guide, it includes the names and addresses of the world's leading manufacturers and suppliers of all types of marine machinery, equipment, supplies and services. A listing is provided, at no cost for one year in all issues, only to companies with continuing advertising programs in this publication, whether an advertisement appears in every issue or not. Because it is an editorial service, unpaid and not part of the advertisers contract, MR assumes no responsibility for errors. If you are interested in having your company listed in this Buyer's Directory Section, contact Mark O'Malley at momalley@marinelink.com

AUTOMATION AND COMMUNICATION SYSTEMS

L-3 Maritime Systems, 9 Malcolm Hoyt Drive, Newburyport, MA 34232, USA

AUTOPILOT SYSTEMS

AG Marine, 5711 34th Ave NW 2nd floor, Gig Harbor, WA

BARGE FABRICATION

Signal International LLC, 1011 S.Hwy 6, Ste 108, Houston, TX 77077, USA

BOAT BUILDING AND DESIGN

Rivolta Group, 1765 Ringling Blvd. Suite 300, Sarasota, FL , tel:941 954-0355, fax:941 954-0111, Rrivolta@rivolta.com contact: Renzo Rivolta, www.rivolta.com

Textron Systems, 1010 Gause Blvd., Slidell, LA , tel:985 661-3621, fax:985 661-3631, dmirelez@tmls.textron.com contact: Daniel Mirelez, www.textron.com

BOATBUILDER

Washburn Doughty, P.O. Box 296, E. Boothbay, ME 04544, USA

BOW AND STERN THRUSTERS

Omnithruster Inc., 2201 Pinnacle Parkway Twinsburg, Ohio 44087, Cleveland, OH 44139, USA , tel:330 963-6310, fax:330 963-6325, widmer@omnithruster.com contact: Kurt Widmer, www.omnithruster.com

BRAKE SYSTEMS

Hilliard Corporation, 100 West 4th Street Elmira, New York 14901-2148, NY , tel:607 733-7121, fax:607 732-8979, rdoud@hilliardcorp.com contact: Rob Doud, www,hilliardcorp.com

BRONZE VALVES

William E.Williams Valve, Inc., 3852 Review Avenue, L.I.C., NY , tel:718 392-1660, fax:718 729-5106, sales@williamsvalve.com contact: Kevin Cole, www.williamsvalve.com

BULKHEADS/MJ DOORS

Advanced Structures Corporation, 235 W. Industry Court, Deer Park, NY , tel:631 667-5000, fax:631 667-5015, advstrcorp@aol.com contact: Susan Stark, www.AdvancedStructuresCorp.com

CAD/CAM SYSTEMS

Autoship Systems Corp.,, 409 Granville Street Suite 1451, Vancouver, BC V6A 1E1, Canada

CENTRIFUGES

Westfalia Separator, Inc., 100 Fairway Ct., Northvale, NJ , tel:201 784-4395, fax:201 767-3416, Francis.Kennedy@geagroup.com contact: Frank Kennedy, www.wsus.com

CHARGE AIR COOLERS

3 Star Atlantic Radiator Ultra Sonic Cleaning Division, 4358 N.Dixie Highway, Oakland Park, FL 78634, USA , tel:954 566-7403, fax:954 561-5946, MCross9241@aol.com

CONTROL SYSTEM-MONITORING/STEERING

Omega Engineering, One Omega Dr., Stamford, CT 06907, USA , tel:203 359-1660, fax:203 968-7192, kkwait@omega.com contact: Dan Jackson, www.omega.com

CORDAGE

Yale Cordage, 77 Industrial Park Road, Saco, ME , tel:207 282-3396, fax:207 282 4620, info@yalecordage.com contact: Dick Hildebrand, www.yalecordage.com

CRANKSHAFT REPAIR

In-Place Machining, 3811 N. Holton St., Milwaukee, WI 53212, USA

DECK FITTINGS

Baier Marine, 1914 N 34th Street Suite 502, Seattle, WA , tel:206 709-1500 ext. 223, fax:206 632-2441, sales@baiermarine.com contact: Alex Smith, www.baiermarine.com

DECK MACHINERY- CARGO HANDLING EQUIPMENT

Smith Berger Marine, 7915 10th Ave. S., Seattle, WA 98108, USA

DIESEL ENGINE- SPARE PARTS & REPAIR

Goltens Worldwide, PO Box 1176, Marion, MA , tel:508 728-3128, fax:508 536 6025

Motor-Services Hugo Stamp, 3190 SW 4th Avenue, Ft. Lauderdale, FL 33315, USA , tel:954 763-3660, fax:954 763-2872 , www.mshs.com

DOOR LOCKS

The Brass Works Inc., P.O. Box 566, Deland, FL , tel:386-943-8857, fax:386-943-8810, info@marinedoorandcabinethardward.com

DOORS- MARINE & INDUSTRIAL

Walz & Krenzer, Inc, 91 Willenbrook Rd.Unit B4, Oxford, CT , tel:203 267-5712, fax:203 267-5716, sales@wkdoors.com contact: Melissa Shepstone, www.wkdoors.com

ELECTRIC MOTORS AND CONTROLS

Ward Leonard, 401 Watertown Road, Thomaston, CT

ELECTRIC PROPULSION

Avtron Industrial Automation, 7900 E.Pleasant Valley Road, Independence, OH , tel:216 642-1230/ext 1263, fax:216 642-6037, mduskey@avtron.com contact: Mark R. Duskey, www.avtron.com

ELECTRICAL SERVICES

PMI Industries, Inc, 5300 St. Clair Avenue, Cleveland, OH

ENGINE AND COMPONENT ALIGNMENT

Dynamold, Inc., 2905 Shamrock Ave., Fort Worth, TX 76107, USA , tel:817-335-0862, fax:817-877-5203, pmpeck@dynamold.com contact: Michael Peck, www.dynamold.com

EPIRB

Whiffletree Corporation Inc., PO Box 27, Bridgton, ME , tel:207 647-3300, fax:207 647-3700, glcl@bellatlantic.net

FENDERING SYSTEMS/ BUOYS - DOCK & VESSEL

Schuyler Rubber Co., 16901 Woodred Rd.NE, Woodinville, WA 98072, USA , tel:425 488-2255, fax:425 488-2424, Greg@schuylerrubber.com contact: Greg Armfield, www.schuylerrubber.com

FILTRATION

Boll Filter, 9822 General Drive. Ste. 180, Plymouth, MI 48170, USA , tel:734 451-4680, fax:734 451-4681, Latorre@bollfilterusa.com contact: Michele Latorre, www.bollfilterusa.com

FURNITURE

Wright Computer Products Inc., PO Box 565, Woodbury, NJ

GALLEY EQUIPMENT

Jamestown Metal Marine Sales, Inc., 4710 Northwest 2nd Ave., Boca Raton, FL 33431, USA

Maritime Associates International, 3832-010 Baymeadows Rd. #407, Jacksonville, FL 32217, USA

US Outfitters, 10752 Deerwood Park Boulevard South Waterview II Suite 100 Jacksonville, FL 32256, Jacksonville, FL

HATCHES & DOORS

Baier Marine, 1914 N 34th Street Suite 502, Seattle, WA , tel:206 709-1500 ext. 223, fax:206 632-2441, sales@baiermarine.com contact: Alex Smith, www.baiermarine.com

Juniper Industries, 72-15 Metropolitan Ave., Middle Village, NY 11379, USA , tel:718-326-2546, fax:718-326-3786

Maritime Associates International, 3832-010 Baymeadows Rd. #407, Jacksonville, FL 32217, USA

US Outfitters, 10752 Deerwood Park Boulevard South Waterview II Suite 100 Jacksonville, FL 32256, Jacksonville, FL

HORNS/WHISTLES

Kahlenberg Brothers Co., P.O. Box 358, Two Rivers, WI 54241, USA , tel:920-793-4507, fax:920-793-1346, EKahlen@Kahlenberg.com contact: Erick Kahlenberg, www.Kahlenberg.com

HVAC

Jamestown Metal Marine Sales, Inc, 4710 Northwest 2nd. Ave., Boca Raton, FL 33431, USA

INTEGRATED BRIDGE SYSTEMS

L-3 Maritime Systems, 9 Malcolm Hoyt Drive, Newburyport, MA 34232, USA , tel:978 462-2400, fax:978 462-4497, Jon.Miller@L-3com.com contact: Jon Miller, www.L-3com.com/MPS

INTERIORS

Jamestown Metal Marine Sales, Inc., 4710 Northwest 2nd Ave., Boca Raton, FL 33431, USA

Maritime Associates International, 3832-010 Baymeadows Rd. #407, Jacksonville, FL 32217, USA

Thermax Marine-Panel Specialists, Inc., 3115 Range Rd., Temple, TX 76501, USA , tel:813 340-3940, fax:813 264-2507, thermax@panelspec.com contact: John Hutchinson, www.thermaxmarine.com

US Outfitters, 10752 Deerwood Park Boulevard South Waterview II Suite 100 Jacksonville, FL 32256, Jacksonville, FL

JOINER PANELS/FURNITURE

Maritime Associates International, 3832-010 Baymeadows Rd. #407, Jacksonville, FL 32217, USA

US Outfitters, 10752 Deerwood Park Boulevard South Waterview II Suite 100 Jacksonville, FL 32256, Jacksonville, FL

LIFEBOATS/RAFTS

DBC Marine Safety Systems, 101-3760 Jacombs Rd., Richmond, BC V6V 6T3, Canada

LIFESAVING EQUIPMENT

C.M. Hammar AB, August Barks Gatan 15, 421 32 Vastra Frolunda , Sweden

LIGHTING SYSTEMS/ EQUIPMENT

Maritime Associates, P.O. BOX 1788, Crystal Bay, NV 89402, USA

LIVING QUARTERS AND PUBLIC SPACES

VSS Industries, 7640 Wilbur Way, Sacramento, CA , tel:916 681 8677, fax:916 681 4867, duane@vsscountertops.com contact: Duane Tucker, www.vsscountertops.com

LUBRICANTS

ExxonMobil Marine Lubricants, 3225 Gallows Rd, Fairfax, VA , www.exxonmobilmarinelubes.com

Kobelco Eagle Marine, Inc., 366 Fifth Avenue, Suite 712, NY, NY 10017, USA

MARINE & OFFSHORE SIGNAGE

Maritime Associates, P.O. BOX 1788, Crystal Bay, NV 89402, USA

METEOROLOGICAL INSTRUMENTS

R. M. Young Company, 2801 Aero Park Drive, Traverse City, MI , tel:231-946-3980, fax:231-946-4772, vsherman@youngusa.com

MOORING PRODUCTS AND SYSTEMS

PSI Marine, Inc., 3075 Shattuck, Ste 801, Saginaw, MI

PARTS LOCATOR SERVICE

Inventory Locator Service, 8001 Centerview Parkway Suite 400, Memphis, TN 38018, USA

PARTS/SERVICE AND REPAIR

Westfalia Separator, Inc., 100 Fairway Court, Northvale, NJ 07647, USA , tel:(201) 784-4335, fax:(201) 784-4399, Klaus.Brinkrode@geagroup.com contact: Klaus Brinkrode, www.wsus.com

PASSIVE FIRE PROTECTION

Microtherm, 3269 Regal Drive, Alcoa, TN , tel:865 681-0155, fax:865-681-0016, ABostrom@microtherm.us contact: Alyssia Bostrom, www.microtherm.us

PROPELLERS

Kahlenberg Brothers Co., P.O. Box 358, Two Rivers, WI 54241, USA , tel:920-793-4507, fax:920-793-1346, EKahlen@Kahlenberg.com contact: Erick Kahlenberg, www.Kahlenberg.com

PROPULSION EQUIPMENT AND SERVICES

Sound Propeller Systems, LLC, 9130 15th Pl.S Suite A, Seattle, WA , tel:206 392-0021, fax:206 392-0026, nhansen@soundpropsys.com contact: Norm Hansen, www.soundpropellersystems.com

PROPULSION ORDER TELEGRAPHS

Prime Mover Controls, 3600 Gilmore Way, Burnaby, BC V5G 4R8, Canada

RIGID INFLATABLE BOATS

Wing Inflatables, P.O. Box 279, 1132 Samoa Blvd., Arcata, CA 99521, USA

SATELLITE COMMUNICATIONS

Intellian Technologies, 9261 Irvine Blvd., Irvine, CA , tel:949 916-4411, fax:949 271-4183, sales@intelliantech.com contact: John Minetola, www,intelliantech.com

SEALS

Kobelco Eagle Marine, Inc., 366 Fifth Avenue, Suite 712, NY, NY 10017, USA , tel:212-967-5575, fax:212-967-6966, hawkins@kobelco-eagle.com contact: David Hawkins, www.kobelco-eagle.com

SEATING

H.O. Bostrom, 818 Progress Ave., Waukesha, WI 53186, USA , tel:262.542.0222, fax:262.542.3784, sales@hobostrom.com contact: Mike Oemichen, www.hobostrom.com

SHAFT HORSEPOWER SYSTEMS

Hillhouse Industrial Marine, 296 Knox Mountain Road, Sanbornton, NH , tel:603 566-4330, fax:603 934 5388

SHIPBOARD SURGE SUPPRESSORS

Wright Computer Products Inc., PO Box 565, Woodbury, NJ , tel:856 845 6767, fax:856 384 1145, wcpinc@verizon.net contact: David Wright Sr., www.wcp-usa.com

SURFACE PREP TOOLS

Aurand Mfg., 1210 Ellis St., Cincinnati, OH 45223, USA

TANK GAUGING AND SENSORS

Electronic Marine Systems, 800 Ferndale Pl., Rahway, NJ 07065, USA , tel:732 382-4344, fax:732 388-5111, emsmarcon@aol.com contact: Tom Priola, www.emsmarcon.com

TANK LEVELING INDICATORS

King Engineering Co, PO Box 1228, Ann Arbor, MI 48106, USA

Technical Marine Service,Inc., 6040 N.Cutter Circle Suite 302 Portland,Ore 97217 , tel:503 285-8947, fax:503 285 1379, SBrox@tms-usa.com

Technical Marine Service,Inc., 6040 North Cutter Circle, Suite 302, Portland, OR 97217-3956, USA , tel:503-285-8947, fax:503-285-1379, SBrox@tms-usa,com contact: Steve Brox, www.Levelcom.net

WASTE WATER TREATMENT

Marinfloc AB, Industrivagen 10, Verekil , tel:+46 (0) 304-606 300, fax:+46 (0) 304-100 51, pl@marinfloc.com

WINCHES & FAIRLEADS

Skookum, P.O. Box 280, Hubbard, OR 97032, USA

VANE BROTHERS

— Over a Century of Maritime Excellence —

Baltimore ⋆ Norfolk ⋆ Philadelphia

THE VANE BROTHERS COMPANY is recruiting qualified candidates for positions on our brand new state-of-the-art marine transport vessels operating along the Northeastern Atlantic Seaboard. We offer highly favorable work schedules – 2 weeks on – 2 weeks off, as well as excellent opportunities for career advancement.

Tug Masters and Mates

Must possess a valid Master of Towing Vessels near coastal or greater endorsement. **Experience with petroleum barges necessary.** New York Harbor experience preferred.

Marine Engineers

Chief engineers for Coastal and Inland tugboats. Must possess a valid **DDE** (Designated Duty Engineers) license or greater. Valid **MMD** (Merchant Marine Document) required. Two years engine room experience required.

Tankermen

Current **MMD** and **PIC** endorsement required; experience preferred.

If you have the skills and experience for any of our open positions, please contact our **Fleet Recruiter** at **410-735-8212,** or fax your resumé to **410-735-8280.**

www.vanebrothers.com

Roxtec Inc. is the world's largest manufacturer of module based cable and pipe seals. **We are currently seeking a Sales Professional to develop the Marine segment for Roxtec.** This position provides sales, marketing, and support directly to government agencies, contractors, and suppliers of products for military applications. These applications include U.S. Navy and U.S. Coast Guard shipbuilding and all suppliers. Please see our ad in **www.maritimejobs.com** for more information on the position and how to apply for this opportunity or email resume and cover letter to **roxtecjobs1@us.roxtec.com** • **www.roxtec.com**

1st Assistant Engineer with Tank-PIC or Tankerman
Job Location: Japan, Narita

Sailing the Pacific Ocean on a US flagged Tanker with rotations between South Korea and multple ports in Japan. United States license only. US citizens only.

Tony Hanley
Vessel Management Services
4535 North Rampart St.
New Orleans LA 70117 USA
Phone: (504) 945-9181
Fax: (504) 945-9876
Email: tony@vmsi.nocoxmail.com

Master for Motor Vehicle Geysir
Job Location: USA, Norfolk

Sailing as Master on a US flagged container with rotations between Norfolk, VA and the Azorres. US citizens and US license only.

Clifford Ruggles
Transatlantic lines
6 Lincoln Ave
Greewich CT 06830
Phone: (419)654-2758
Fax: (419)798-1268
Email: cliff@transatlanticlines.com

Dock Master
Job Location: USA, Bridgeport

Derecktor Shipyards, located in Bridgeport, Connecticut is looking for a certified Dry Dock Master with 5-10 years experience to operate and manage a 4000 ton Dry Dock.
Dock Master will be responsible for the technical work in docking, rigging, hauling, and undocking vessels, tugs, barges at our facility as well as maintaining the integrity of the Dry Dock. Must have considerable knowledge of structure of vessels, stress points, load factors, cradle positioning, and blocking of vessels. Must have knowledge in stability calculations and docking plan development. Ability to plan, organize, manage, and communicate well with others. Knowledge of Coast Guard regulations and safety requirements. Superior common sense skills and the ability to make informed decisions quickly. Knowledge of boats is essential.
Responsibilities:
-Shall be responsible and undertake all safe hauling of vessels, tugs, and barges at the yard.
-Shall be responsible for the safe launching of newly constructed vessels.
-Shall coordinate with all parties concerned during launching operations.
-Shall represent the docking department to conduct all Risk Assessments for all docking department's activities.
-Shall be able to lead and manage a team of shipwright personnel to execute all docking operations.
-Shall be able to liaise with clients, marine authorities, launching parties, tugs personnel or any other personnel involved in the operations.
-Ensure discipline on board is maintained at all times.
-Ensure time-keeping and house-keeping are being complied in accordance to company's working regime.
Requirements:
-Be able to prepare and submit reports for all activities.
-Must be familiar with Coast Guard's rules and regulations on all docks operations.
-Must be familiar with Ministry of Manpower's rules and regulations on Health Safety and Environment
-To be able to work irregular hours
-To be able to work daily including week ends and public holidays whenever required
-To be able to interact with a multi-racial team of personnel
-To be able to exude professionalism and good work attitude to fellow subordinates and clients
-Liaise with Contracts Dept and Project Managers on the selection of sub-contractors.
-Liaise with Procurement for all Docks material requirement.
Attributes:
-Cheerful and pleasant disposition
-Resourceful and has initiative to resolve problems
-Committed and responsible

Salary depend on Working Experience & Qualification. Please email your resume (Please provide Current, Expected Salary, Notice Period, Reason for Leaving). EOE.

Elizabeth Weatherborn
Derecktor Shipyards
837 Seaview Avenue
Bridgeport CT 06607 USA
Phone: 203-336-0108
Fax: 203-367-8259
Email: elizabethw@derecktor.com

PORT PILOT – CARIBBEAN Region
Job Location:

PORT PILOT – CARIBBEAN Region
Company: SVITZER Americas

SAFTETY & SUPPORT AT SEA…TOWAGE, SALVAGE, & RELATED SERVICES
GREAT CAREER OPPORTUNITIES
Description
SVITZER is the largest company globally within towage, salvage and related services. We are 100% owned by the Denmark-based A.P. Moller/Maersk group – the world`s largest group of maritime companies. SVITZER Americas is growing steadily and is now operating more than 40 vessels (tug boats and related vessels) throughout North, South, Central America & the Caribbean. We are looking to talent to our Operations/Technical team at the SVITZER Americas Head Office in Miami, Florida, USA.

SVITZER Americas is currently hiring Terminal/Harbour Pilots to work in Oil Storage and Trans-shipment facilities in the Caribbean.
Areas of responsibility

• Provide pilotage services at the Oil Storage and Trans-shipment facilities for approximately 275 /325 vessels per year.
• Pilot will direct, inspect and coordinate activities of the harbour
• Supervise all day-to-day operational/technical/administrative activities
• Responsible for direction and coordination of the team of operative personnel
• Supervise loading and discharging operations, for all vessels calling the terminal facility
• Operational reporting according to company standards
• Maintaining highest regard for safety while at all times maintain full compliance with HSEQ standards
• Remain on board and provide guidance to Master and navigational officers during berthing/unberthing operations as well as SPM positioning
• Represent the Company at professional meetings and on relevant committees relating to operational and navigational matters

Requirements
• Merchant marine degree
• Must have a minimum 10 years of marine pilot experience with VLCC's
• Good knowledge of maritime/shipping rules and regulations
• Fluent in English
• Excellent communication skills
• Cultural awareness and understanding
• Open minded and a good team player

Preferred starting dates

• As soon as possible.

Viktoria.Tiapkova@svitzer.com
Assistant Crewing Manager
SVITZER Americas

Viktoria Tiapkova
SVITZER
SVITZER Caribbean Ltd
Lennar Corporate Center
790 NW 107th Ave Suite 400
33172 USA
Phone: 305-989-0270
Fax: 305-221-4797
Email: viktoria.tiapkova@svitzer.com

CAPTAIN
Job Location: USA, On a Ship

POSITION SUMMARY:

The Captain is in charge of the navigation, operation, management, care and safety of the vessel and its equipment. The safety and well being of the crew as well as overall personnel management and safety and security of all other persons on board are the Captain's responsibility. It is the duty of the Captain to keep him/herself fully informed of, and to adhere to, all U.S. and other relevant laws, regulations (Federal and state), and directives affecting the operation of the vessel. In addition, the Captain shall acquaint him/herself fully with the regulations and local requirements of all ports visited. The Captain shall not berth at any port until all laws have been complied with. Management skills - Relating to close quarters navigation & managing other officers. In-depth knowledge of passenger/vessel operations. Experience in public speaking (Introduction given to passengers which includes safety announcements is a requirement of the job; performing marriages on board, etc.). Maintain a rapport with the guests - customer service aspect is extremely important. Captain is always accessible (directly or indirectly) to the guests along with the entire crew.

MAJOR AREAS OF RESPONSIBILITY INCLUDE:
• Ensure all safety-related equipment is in good working order at all times.

• Maintain or oversee the proper use of deck, radio, engine & other logs that are required by Cruise West or regulatory agencies.

• Overall charge of vessel staff; fully utilizing supervisors in their respective departments; working with supervisors to maintain the highest levels of safety, esprit de corps and customer service. Coach staff and work to train subordinates to the highest level. Conduct performance evaluations for direct reports and review and sign others.

• Maintain close communication with the main office and satellite offices along vessel route. Communication should always be consistent and done in a manner that builds company unity.

• Monitor vessel expenses & report any abnormal costs incurred. Maintain close contact with Port Captain to ensure all cost controls are utilized. Plan ahead to maximize efficiencies, thereby reducing expense.

• Provide for the accurate and timely submission of all administrative, operational, accounting, and accident reports in accordance with Company guidelines.

QUALIFICATIONS:
• Minimum education requires specialized or technical knowledge requiring formal training.

• Minimum of 2 years as First Mate or Captain. Additional 5 years in the Maritime industry - involved in shipboard operations. Must hold at a minimum a Master's license for 100-ton inland vessel. Preference for a 500 ton Master/1600 ton Mate Coastal license. 'STCW 95' compliance required.

• Communication skills require the ability to provide or obtain basic types of factual information or explanations.

• Writing skills require the ability to write text designed to communicate technical information.

• Quantitative skills require the ability to perform algebraic, trigonometric or geometric operations.

• Interpersonal skills require the ability to continually/frequently salvage relationships between others or to deal with extreme emotional reactions.

• Overall knowledge and skills requires the full working knowledge of a recognized discipline that includes a basic understanding of the principles and theory or a general understanding and knowledge of more than one related discipline.

• Responsible for planning and performing a wide variety of duties requiring independent action working toward general results; responsible for meeting different conditions, making decisions based on precedents and company policy.

WORKING CONDITIONS:

Duties and responsibilities are generally performed in a Marine Operations setting, primarily onboard a vessel. Must be physically able to work a typical 12- hour workday of about 10-14 hours per day, seven days a week, for 6 weeks at a time. On any given day hours could be more or less. The 6-week work period is the normal, but not necessarily fixed onboard schedule, and it is followed by a 2 to 3 week period off the vessel. Environmental conditions generally include ambient inside temperature, ambient inside lighting, ambient to loud noise levels, all weather conditions, occasional use of required protective clothing and an irregular work schedule. Mobility demands generally include occasional sitting and occasional standing. Combination activities generally include handling of chemicals/chemical compounds such as cleaning agents. Sensory demands generally involve a computer terminal; telephone operation, microphone and PA systems.

Physical demands generally include frequent bending, reaching, twisting, kneeling, pulling/pushing, grasping, and the ability to climb a 7-foot vertical ladder and fit through a 28-inch wide hatch. Physical demands also include individual handling of one to several different sized objects totaling up to 50 pounds in weight. Handling includes: the dynamic and momentary strenuous lifting and lowering of objects between the ground/deck level and a height of about 4 to 6 feet; continuously repeating these movements about once per minute continuously for up to 20 minutes; repetitive turning and twisting of the body while holding these objects, and passing or receiving them between people as frequently as every 10 seconds; and repeatedly carrying objects of similar weight a distance of up to 100 feet every one to two minutes for as long as 20 minutes without stopping. Each of the above evolutions may be repeated several times in the course of handling ships stores.

Human Resources
Cruise West
2301 5TH AVE STE 401
Seattle WA 98121 USA
Phone: 206-441-8687

Email: resume@cruisewest.com
Web: http://WWW.CRUISEWEST.COM/CAREERS

Boat Operator- 100 Ton
Job Location: USA, WA, Port Angeles/Seattle

Our company is seeking a Boat Operator for our Port Angeles and Seattle locations.

-Operating boats (approx. 50-120 ft. single/twin, triple, quad engine).
-Proven close quarter boat handling skills required.
-Our ideal candidate will have Launch Experience delivering passengers and freight to and from various ships at anchor and underway.
-Excellent boat handling experience required.

Min. Requirements
Minimum USCG 100 Ton License Required
FCC
Current CPR
STCW 95
(ARPA Preferred)

-Salary DOE & Qualifications
- Relocation Assistance Available
- Excellent Benefits Package including Medical, Dental, Vision and Company Sponsored 401K for eligible full-time staff

E-mail or Fax Resume- NO CALLS
E-mail Resume's to allie@arrowlaunch.com
E-mails without Resume's WILL NOT be considered.
Fax- 360-457-1552

Allie Williams
Arrow Launch
PO Box 2376
Port Angeles WA 98363 USA
Phone: 360-457-9617 Ext. 138
Fax: 360-457-1552
Email: allie@arrowlaunch.com

Port Engineer
Job Location: USA, Los Angeles/Long Beach Harbor

JOB TITLE: Port Engineer
LOCATION: Los Angeles / Long Beach Harbor

GENERAL JOB DESCRIPTION:
Schedule, coordinate, and perform vessel repair & maintenance, coordinate purchas-

ing of parts and repair services and supplies, schedule routine maintenance requirements for tugs and barges. Perform inspections of vessels for
repair & maintenance standards and procedures. Keep Tugs and Barges in compliance with all regulatory agencies. Keep accurate records of all maintenance preformed using company program.

REPRESENTATIVE DUTIES:
Schedule, coordinate, and perform flow of work based on customer orders, establish priorities and availability of personnel, equipment, and resources. Keep records of maintenance preformed, hours used, fuel burned, and report to different funding agencies. Schedule routine maintenance of tugs and barges. Manage oil analysis program. Coordinate the purchasing of parts and services for repair and maintenance projects. Perform inspections of vessels for repair & maintenance standards, regulatory Compliance and AWO RCP program. Perform emergency repairs on vessels as required.

SKILLS AND ABILITIES:
- Computer skills: Word and Excel
- Knowledge of oil transportation and marine industry.
- Knowledge of tugs and barge maintenance systems and equipment.
- Ability to repair marine equipment on site under adverse conditions.
- Ability to deal with others using courtesy, tact, and good judgment.
- Maintain the confidentiality of all sensitive communications.
- Ability to understand and execute complex oral and written instructions.
- Ability to work independently with minimal or no guidance.
- Ability to get along with office staff and vessel crewmembers.
- Must be physically fit enough to board barges and tugs at sea and in port.

KNOWLEDGE OF:
Must be able to read, speak, write, type, and understand English in person and over the telephone.
Must be thoroughly familiar with tank barge operations, ship operations, and terminal/refinery operations.

EQUIPMENT AND MACHINERY USED:
- Required to work aboard boats and barges using pike poles, heavy lines, winches, mechanical tools for repairs.
- Computer
- Copier
- Fax Machine

WORK EXPERIENCE:
- Experience maintaining tugs and barges.
- 3 years at sea on tankers or oil barges or equivalent military experience.
- 3 years of increasingly responsible port engineering experience in the maritime industry.

EDUCATION / TRAINING:
- Four year college education in Maritime field or related studies or equivalent experience.
- U.S. Coast Guard license or U.S. Coast Guard Tankerman endorsement on a Merchant Mariner's Document.
- HAZWOPER (including Incident Command System) training within 90 days of being hired.
- First Aid training.
- CPR training.

OTHER DUTIES:
- Perform related duties as assigned.
- Perform in the company Spill Management team as assigned.

Human Resources
Harley Marine Services
910 SW Spokane Street
WA 98134

Fax: 206-428-7194
Email: jobs@harleymarine.com
Web: http://harleymarine.com/jobs.html

Director of Quality, Safety & Environmental
Job Location: USA, Seattle

JOB TITLE: Director of Quality, Safety & Environmental
LOCATION: Puget Sound / Columbia River, L.A. / Long Beach Harbor, San Francisco, New York Harbor

GENERAL JOB DESCRIPTION:

-Ensuring company quality, safety and environmental policies and procedures are developed and maintained in accordance with all applicable codes, standards, regulations and Company procedures.

-Compliance with regulatory agencies

-Providing Management oversight for:

Company safety;
Vessel inspections;
Emergency preparedness;
Investigation of incidents and near misses when applicable and other significant safety and environmental management issues.
-Coordinating and maintaining HMS safety and regulatory training programs

Initiating the reporting of claims
Monitoring the return to work status of lost time employees and keeping stakeholders apprised as necessary

Organizing and maintaining the Company Incident Command System
Participating in the HMS Quality and Oversight Group
Overseeing, functionality and control of QS systems and processes

Document oversight and control
Record oversight and control

Schedule and conduct internal/external audits
Arranging, coordinating and participating in QS Management Review meetings

Facilitating and participating in Safety training and meetings

SKILLS AND ABILITIES:
Extensive knowledge of the oil transportation and maritime industry.
Ability to deal with others using courtesy, tact, and good judgment.
Maintain the confidentiality of all sensitive communications.
Ability to understand and execute complex oral and written instructions.
Ability to work independently with minimal or no guidance.
Ability to get along with office staff and vessel crewmembers.
Must be physically fit enough to board barges and tugs.
Must be able to read, speak, write, type, and understand English in person and over the telephone.
Must possess a valid state drivers' license.
Must pass a pre-employment drug & alcohol screening.

WORK EXPERIENCE:
Experience in maintaining tugs and barges a plus.
EDUCATION / TRAINING:
Merchant Mariner's Document/Credential
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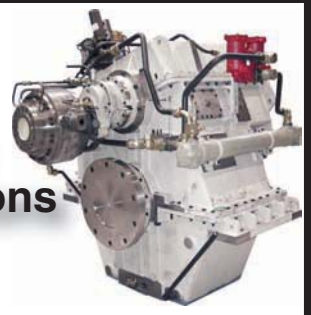

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